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THE POLYCLINIC

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JOURNAL OF THE MEDICAL GRADUATES' COLLEGE, LONDON.

VOL. VII., No. 1.—JANUARY, 1903.

PROSPECTIVE.

THE retrospective commentary with which we took leave of the old year, renders it needless for us to say more as to the new one than that our work in its various departments will be continued as heretofore. In one important feature we make progress; of this we must speak in some detail. Our Laboratory, our Teaching Classes, our Committees of Investigation, our Clinical Consultations, and our Journal, will, however, be conducted as formerly. As regards the Journal, no pains will be spared to make it representative of the clinical work of the College and its Committees. If funds permit, it will be both more freely illustrated and enlarged.

The new department to which we have just referred is a Course of Lectures for which we have not been able to devise any better names than "Composite" or "Systematic." The latter term can scarcely be claimed because the lectures will not be given in orderly sequence, although it is intended that they shall embrace all subjects connected with the practice of Medicine, Surgery, Obstetrics, and all allied branches of professional study. In this course probably not fewer than two hundred lectures will be given every year. The hour will be uniform—a quarter past five in the afternoons of five days a week. Thus they will follow directly after the conclusion of the afternoon's consultation. They will be practical lectures but not clinical, inasmuch as only quite exceptionally will patients be introduced. The consultation theatre is devoted to the examination of patients and the diagnosis of disease, and to it these lectures will be in some sense supplementary. It is impossible that clinical lectures should be exhaustive or approach completeness, and it is designed that these lectures shall supply the unavoidable deficiences of those given with reference to the cases of individual patients, and shall offer systematic *résumés* of our knowledge respecting special forms of disease. Although we have spoken of this Course as a new development of the Polyclinic work it is not wholly so. From our commencement we have had lectures on special subjects by distinguished authorities and also short courses on special subjects. What is at present proposed is simply an extension from three to five days a week, for precisely similar topics will engage the attention of our lecturers. The suggestion is, however, that these topics shall be dealt with in a somewhat more didactic manner. Our lecturers are not to be required to produce the results of original research or to propound original views, but rather to give in clear language a sound exposition of the present state of knowledge concerning the subject in hand.

It is intended to repeat the course year by year but not necessarily by the same lecturers for the same subjects. In some instances a lecturer may conclude his subject in a single lecture, but in others two, three, or more may be given. In this matter free scope will for the most part be permitted.

MUSEUM LECTURES.

Another development which will we hope be witnessed during the coming year is the institution of Museum Lectures. These it is proposed to give on Wednesdays at three o'clock in the Museum. Our Museum contains a very large collection of portraits, pathological drawings and specimens. Many of these are in portfolios shut up in drawers, and of those which are displayed in glazed frames not by any means all have adequate descriptions appended to them. It is thought, therefore, that expository lectures in connection with special groups may be acceptable to many. The lectures will not be formal, but rather of the conversational type. They will not be commenced until Mr. Hutchinson's return from India, which it is hoped will be in April. Mr. T. J. Hitchins will assist in this course.

OUR STANDING COMMITTEES.

We have Standing Committees on the subjects of leprosy, tuberculosis, cancer, vaccination, climatic disease, and yaws. These committees meet at irregular intervals—whenever anything of importance is offered for consideration. A special meeting of any one of them can be summoned at short notice if requested by any member wishing to make a communication. As all our afternoons from 4 to 6.30 are now engaged, these committees can only meet at 2.30, or in the later evening.

THE COMPOSITE COURSE FOR 1903.

THE following list arranged according to subjects does not mention by any means the names of all who have promised to take part in this course during the year. It may, however, serve to indicate the scope of the teaching and the character of the teachers. From time to time during the year other lecturers and other subjects will be added. With the commencement of each session a list of appointments specifying the day, subject, and lecturer will be published.

On the Tongue as an Indication in Disease. Dr. Howship Dickinson.

On Diseases of the Nervous System. Dr. Hughlings Jackson, Sir W. Gowers, Dr. James Taylor, Dr. Harry Campbell, Dr. Judson Bury, and others.

On Raynaud's Disease. Dr. Monro (of Glasgow) and Mr. Hutchinson.

On Malaria in English Practice. Dr. Patrick Manson.

On Typhoid Fever. Dr. Seymour Taylor, Dr. Foord Caiger.

On Diseases of the Thyroid. Mr. James Berry.

The Pathology of Asthma. Dr. T. G. Brodie.

On the Surgery of the Gall Bladder, &c. Mr. Mayo Robson.

On various subjects connected with Hygiene and Preventive Medicine. Dr. George Newman, Dr. Childs, Dr. MacLeod.

On Albuminuria. Dr. Pye-Smith.

The Diagnosis of Pregnancy. Dr. S. A. Griffith.

Diseases of the Heart. Dr. Seymour Taylor, Dr. Morison.

Appendicitis. Mr. H. L. Barnard.

Abdominal Operations for Intestinal Perforation. Mr. D'Arcy Power.

Surgical Diseases of the Tongue. Mr. J. Hutchinson, Junr.

On various forms of Insanity. Dr. Savage.

On certain Climatic Phenomena in reference to Health. Dr. Tempest Anderson.

Abdominal Surgery. Mr. Mayo Robson, Mr. Arbuthnot Lane, Mr. H. L. Barnard, Dr. F. J. McCann, Dr. Herman, Dr. Lewers, Mr. D'Arcy Power.

Neurasthenia. Dr. Guthrie Rankin.

Injuries to the Head. Mr. T. P. Legg.

Diseases of the Bladder. Mr. Reginald Harrison.

Gout and Rheumatic Arthritis. Dr. Luff, Mr. Hutchinson, and others.

Diseases of the Eye. Mr. Marcus Gunn, Mr. Treacher Collins, Mr. Ernest Clarke, Mr. Sydney Stephenson.

Diseases of the Breast. Mr. Douglas Drew.

On Cancer. Mr. D'Arcy Power.

Hydro-therapeutics. Dr. Karl Grube.

Dermatology. Dr. Colcott Fox, Dr. Pringle, Dr. Galloway, and others.

Medical Electricity, &c. Dr. Lewis Jones.

Dysentery. Dr. Patrick Manson.

On the Diseases classed as Sciatica. Dr. Bruce (of Strathpeffer).

The Ophthalmoscope as an Aid to Diagnosis. Mr. Sydney Stephenson.

Diseases of the Throat and Nose. Dr. Dundas Grant, Dr. Herbert Tilley.

Defects of Refraction. Mr. Ernest Clarke.

Early Manifestations of Disease. Dr. Ewart.

Infantile Scurvy. Mr. W. S. Colman.

House Ventilation and Drainage. Dr. H. W. G. MacLeod.

Syphilis. Mr. Hutchinson.

On Anæsthetics. Mr. George Rowell.

In addition to these, a lecture on some surgical subject has been promised by Professor Chiene, C.B., of Edinburgh, and Dr. Byrom Bramwell has promised to conduct a clinical consultation and deliver a lecture on consecutive days. Dr. Hawthorne, Mr. Hayward Pinch, Mr. Carless, Dr. Galloway, and others, will also take part in this new scheme of lectures. Particulars of the arrangements, January to March, 1903, will be found in the advertisement pages of this issue.

OUR FINANCES—AN APPEAL.

It is a matter about which there need be no secrecy that our income for the year which has just closed did not meet our expenditure. Had it not been that a member of the Council came forward with an unsecured loan of five hundred pounds, it would have been necessary to appeal to our members in order to enable the Treasurer to satisfy our Christmas creditors. As it is, they have been paid. It is obvious, however, that this is very unsatisfactory finance. The fact is that our fees have been too indiscriminately low, and we may trust that under the revised scheme there will be no deficit next year. Although several non-medical well-wishers—amongst whom we must mention Lord Iveagh and Lord Strathcona as foremost—have helped us liberally, yet the public as a whole has failed to recognise our claims. We are regarded as a purely medical institution which ought either to be self-supporting or should be helped by members of the profession who understand its scope. This attitude, considering the amount of work which we have done, not only in our consultation theatres, but in reference to such subjects as Cancer and Leprosy, is, we cannot but think, a little unfair, but it is not to be wondered at. During the last few years the claims upon the purses of the benevolent have been legion, and the times have been bad. Our dinners, although like the rest of our work very successful in themselves, have been almost total failures as regards obtaining money; worse than that, they have possibly been a source of financial injury by seeming to imply a state of prosperity which has never really existed—our last year's dinner only just escaped being a cause of absolute loss. Our friends are willing to dine with us, but not by any means eager to give us money. It is not, we believe, probable that a dinner will be attempted during the present year. There is, however, no reason whatever why our members should not, all the same, endeavour to obtain contributions from their wealthy friends; there are also many other ways in which help may be afforded to our Treasurer. In the first place we hope that all will pay in their subscriptions promptly; in the next, that all who can afford it will make it a matter of conscience to take also the guinea ticket for the Composite Course of Lectures whether they hope to attend many of them or not; and, thirdly, that all will exert themselves to enlist new members and to induce them to do the same. A very efficient means of affording present help and avoiding future trouble may be found in paying the fee for life-membership (£21), or in procuring its privileges as a New Year's gift for a son or nephew.

It is obvious that our Council cannot remain long without making a very determined effort to pay off the loan which it has just contracted. Already one of its members (Mr. T. J. Hitchins) has, in addition to an immediate donation of five guineas, made an offer of ten more, provided fifty others will give the like sum. Several others have already fallen in with the proposal, and we much hope that at least the number required will rally to Mr. Hitchins' banner and give us a fair start for the ensuing year. Should this be accomplished, the fifty—or may we say the hundred?—will be entitled to dine together and exclusively, with the cheerful consciousness of having done an excellent piece of work.[1]

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[1] We shall commence the publication of a list of names in our next number, and meanwhile Captain Pinch will be glad to receive them.

THE AUTHORITY OF THE PHARMACOPŒIA.

The authority of the Pharmacopœia is both frequently quoted and universally allowed, but the nature and extent of this authority are not always so clearly recognised as is to be desired. Within its legitimate domain the Pharmacopœia is absolute and none may dispute its commands. This domain, however, has well-defined limits, and it is not in the interests either of the medical profession, or—what is more important—of the general public, that these limits should be extended. There is exhibited at times a tendency to permit this, or even to invite it, and we think it well to endeavour to promote a general body of opinion against any such policy. The one definite purpose for which the Pharmacopœia exists is to secure within the British Isles an exact and uniform interpretation of the various terms used in physicians' prescriptions. The application of that purpose may possibly be usefully extended by modifying certain parts of the Pharmacopœia to meet the peculiar wants of other portions of the Empire. But the prime and dominating object of the book is not altered by such modification. The design is, as before, to provide an authoritative list of definitions of the names of medicines as these are commonly written by physicians. And the whole plan and arrangement of the Pharmacopœia are directed to the attainment of this end. The various medicines are first named. Each is then exactly defined in reference to its botanical or chemical source. A careful description of each is next given, so that the pharmacist may be in a position to detect any attempted substitution or adulteration, and may be able to satisfy himself that the substances with which he is concerned are of the nature and quality demanded by the Pharmacopœia. When appropriate chemical tests are possible these are introduced, so as to afford an opportunity of exact determination both of qualitative and quantitative values. In similar fashion the process of manufacture and proportionate composition of the various medicinal preparations—compound or otherwise—likewise receive official definition. As a result of these details every dispensing chemist is provided with the machinery necessary to enable him to make sure that he is supplying the medicines ordered in the terms of any prescription as these are defined in the pages of the Pharmacopœia. The justification of giving to these pages the sanction and authority of the law of the land is that no less an authority is competent to enforce a universal rule defining the sense in which the names of medicines are to be understood. Without the compelling force of legal authority there could therefore be no secure guarantee that every dispenser would interpret these names uniformly and in the sense intended by the physician. Neither the writer of the prescription nor his patient could be certain that the dispenser would understand its terms in the sense in which these were employed by the physician. The confusion, and indeed danger, involved in such a state of matters would obviously be opposed to the public welfare and safety, and it is therefore in the public interest that the Pharmacopœia exists, and that its decrees are promulgated with the weight and authority of the legislature and are enforced by the sanction of legal penalties. But when the law has once secured this end its functions are discharged. It has provided for the public a means of protection which cannot be provided from any other source. To this extent legal force is necessary, because no other force is available. But an extension of the action and responsibility of the public authorities in this direction is neither necessary nor advisable. That these principles are recognised by the legislature is manifest from the terms of the Acts of Parliament under which the Pharmacopœia has come into existence. They are not, however, always recognised by the critics. On the contrary, responsible suggestions have more than once been made to radically alter the character of the Pharmacopœia and to determine its construction on principles entirely out of harmony with those which form its essential justification. For example, it has been proposed to limit admission to its pages to medicines approved by a committee of pharmacologists and therapeutists, and thus to make it a list of substances which, in the judgment of such a committee, possess accredited remedial value. We do not pretend to question the value of a volume constructed on these lines. What we say is that it would not fulfil the purpose of a national pharmacopœia. Nor is it either necessary, or in harmony with public policy, that any such volume should have the support and dignity of legal authority. The object of the Pharmacopœia is not to say what substances *should* be used as medicines, but to define those that *are* used, and in this way to protect the public against the evils necessarily attached to any substitution, adulteration, or uncertain strengths of medicines. If a committee of pharmacologists or other experts desires to communicate their experience and views to the profession, there are numerous and ready opportunities for them so to do. They may prophesy as they will, and their opinions will no doubt receive due attention. But there is no reason at all why their teaching should be authorised and dignified by legal warrant and title. Indeed, any such proceeding is not only unnecessary but is also most inexpedient, as it would tend to restrict the free play of private judgment in the selection and use of remedies and to create a narrow and artificial standard capable of being quoted as the measure of therapeutic orthodoxy. It is certainly not the business of the legislature to determine and proclaim what is and what is not of definite therapeutic value, and any official attempt to do so would oppose rather than promote the public interest. But it is the business of the law to secure for His Majesty's lieges a reasonable guarantee that the names of medicines shall each be understood in one and the same sense in every part of the country, and to punish those who carelessly or wilfully misconstrue them. Hence the General Medical Council has been instructed and authorised to issue a volume of authoritative definitions and descriptions of those medicines which in their judgment require such definition and description. Now, obviously, these requirements apply to medicines which are more or less generally used by physicians. Thus the Council in framing the Pharmacopœia has to decide, not on the therapeutic value of remedies—a function for which, in its corporate capacity at least, the Council is in no sense fitted—but rather, what substances command such an amount of professional support as to make it wise in the public interest to provide them with statutory definitions. In the discharge of this function, it is usage rather than usefulness which must guide the Council. No doubt it is desirable that the profession shall employ only those medicines which possess distinct therapeutic value. But the education necessary to promote this end must be left to the voices of the experts and to the discipline of experience. It is not within the province of the legislature or the General Medical Council or the

British Pharmacopœia. The special province of these in relation to the use of medicines is to obtain for the public a uniform interpretation of the terms which physicians employ in the construction of their prescriptions. In this way only can the public safety be secured. The experts may properly employ themselves with the education of the profession and may thus, indirectly, and in time, determine the constitution of the Pharmacopœia. The immediate duty of that book, however, is not to proclaim the current notions of pharmacologists, but to protect the public against the risks of misconstruction of the terms employed by the physician. Any action, therefore, which would limit the practice of official definition to a more or less narrow group of substances approved by laboratory or other arbitrary tests is opposed to the public interest. The interest of the public is that the individual physician shall have full liberty to prescribe whatever in his judgment seems likely to lessen the patient's suffering and to promote his health, and that substances so prescribed shall be dispensed of the nature and quality intended by the physician. These ends are met by leaving the selection of his remedies to the physician, whilst the law, by providing an imperative standard of reference, directs the dispenser how to interpret the terms which the physician employs. This standard of reference is the British Pharmacopœia.

The objections above stated apply with equal force to the suggestion that each of the substances named in the Pharmacopœia should have attached to it a list of the clinical conditions in which it may be advantageously employed. This, of course, would be to make the Pharmacopœia a volume of official therapeutics, and to constitute the General Medical Council an authoritative voice on the treatment of disease. It is not difficult to imagine how a book so constituted would restrict the liberty and invade the judgment of the practitioner, and how readily it would come to be quoted by the public either in favour of or in opposition to a proposed scheme of treatment. Those who favour such a proposal have evidently altogether failed to grasp the essential principle which demands and justifies the existence of a national Pharmacopœia. The same remark may be made regarding suggestions that the Pharmacopœia should contain useful hints to practitioners regarding the combination of remedies, the use of flavouring agents, and so forth.

All these can be provided, and are provided by private enterprise far better than by the slow, cumbrous, and dogmatic processes of legal authority. But private enterprise cannot give an authoritative and compulsory list of definitions of the terms used in prescriptions, and cannot, therefore, secure the public against the dangers which the absence of such definitions would permit. Hence the Pharmacopœia must exist, and its directions must possess legal force and claim. These directions, however, apply within a comparatively narrow field, and the constituency to which they speak is rather that of the dispensers than the prescribers of medicines. The Pharmacopœia is neither intended to be a list of medicines guaranteed by professional authority to possess remedial virtue, nor a guide to the construction of elegant and successful prescriptions. No doubt there is a certain presumption in favour of pharmacopœial medicines, at least to the extent that as they are recognised in the official volume they must be more or less generally used, and if used, probably therefore, useful. Such a consideration ought to have due weight with prescribers, and more especially with those of junior experience. The chief interest of the physician in the Pharmacopœia, however, is to see that the remedies he is in the habit of prescribing are adequately defined there, in order that he may rely upon the accurate and uniform interpretation of his prescriptions by the dispenser in whatever part of the country the latter may practise. The Pharmacopœia has no control over the selection of remedies; the decision in this respect is to be taken entirely on the judgment and responsibility of the physician. What is true of the selection of remedies for the treatment of an individual patient is true also of the determination of the doses in which they are ordered. Here again, the judgment and responsibility are entirely matters for the decision of the physician. It is no doubt the case that those of the official remedies used for internal administration have each in the Pharmacopœia a minimum and maximum dose stated. But this is hardly for the guidance, and is certainly not for the compulsion of the physician. The statement, for example, that the dose of quinine sulphate is 1 to 10 grains, is, as a therapeutic lesson, a mere absurdity. And in practice the so-called official doses are set at naught in a hundred instances every day. The one advantage that the introduction of doses into the official pages possesses is, that it forms an additional check against the risk of accidental poisoning. It does this by making the dispenser officially acquainted with what may be called the average doses of the various remedies. Thus he is placed in a position to observe any slip or apparent slip in this respect which may be made in the prescription, and to approach the physician to have this either rectified or approved, as the case may be. It is, indeed, only fair to the dispenser that when a dose in excess of the pharmacopœial maximum is intentionally prescribed this quantity should be specially initialled or otherwise confirmed. There is something to be said on the other side. The statement in the Pharmacopœia of averages doses of the official remedies has indeed the advantage just claimed for it. But it carries certain penalties. It condemns the medical student to the laborious task of committing to memory and producing for examination purposes long lists of figures which do little either to illuminate his mind or increase his efficiency. And what is worse, the habit thus induced is very apt to prejudicially stereotype his practice in after years. The doses he has learned as a student become the unbending rule of his life, whereas successful therapeutics depends largely on the adjustment of the dosage to the requirements of the individual patient. And the wants of individual patients in this respect vary within very wide limits. The claims of public safety are necessarily imperative, and as we believe the official doses help to promote this end, we do not advocate their suppression. But we take note of the risks of their tyranny and suggest that their true position and significance should be appreciated.

It may be said that all this seriously reduces the dignity and influence of the Pharmacopœia. Even if that be so it is of little consequence so long as the real meaning and value of the volume are apprehended. In its legitimate sphere it is paramount. But to propose to develop it as the fine flower of expert pharmacological knowledge, or to convert it into a manual of directions for the prescriber, is to miss its essential purpose and to deprive it of its reasonable claim and defence. The one point where it touches the physician is that it compels him in employing any one of its terms to use this in the sense defined in its pages. In all other respects he must exercise the freedom of his own judgment and accept the responsibility of his own decisions. The Pharmacopœia neither directs the one nor lightens the other. As an instrument in the service of the public it can boast a useful and valued function. But, so far as the medical profession is concerned, it is neither to be hailed as a dictator nor acclaimed as a fetish.

C. O. H.

LEPROSY IN INDIA.[1]

Sir Joseph Fayrer, Ladies and Gentlemen,—We are here to-day in the interest of a tenth of a million of our fellow-creatures who are at the present time, in our great Indian Empire, sufferers from the disease known as Leprosy. They are for the most part poor and ignorant, and quite incapable of devising measures to prevent the perpetuation of their curse. It is for us as educated Englishmen, many of us trained investigators, to bring our knowledge and our reasoning powers to bear upon the facts for their benefit. It is not alleged that any new crisis has arisen, or that there is in the matter any great national peril. We do not believe that the disease is on the increase in India, but rather the reverse, and the ratio of lepers to the general population in India may not improbably have been much the same for the last three or four thousands of years. The fact, however, that the sum total of sufferers is never less than 100,000, and that from year to year the disease steadily maintains its ground, may well stimulate our industry and prompt us, by the strong motive of humanity, to apply ourselves earnestly to the task in hand.

Many of those present are, I believe, aware that I am myself about to make a short visit to Ceylon and India in the hope of gaining a clearer insight into the present bearing of the facts. It is in the desire to obtain valuable counsel as to how further enquiry can be most profitably directed that the present meeting has been convened. The object of my journey is not so much to see lepers or to study the clinical aspects of the disease itself; that I feel to have already done sufficiently, in other places, and leprosy is the same disease all the world over. My objects are rather to try to ascertain the facts as to its local prevalence in India, and the causes which have influenced its decline in some districts, and its increase in others. In this way it is hoped to arrive at definite opinions as to its efficient causes and the means best adapted for its prevention.

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[1] This paper was read by Mr. Hutchinson at a special meeting of the Standing Committee on Leprosy, held November 26, 1902. The more particular object of the meeting was to obtain suggestions as to the objects of enquiry, places to be visited, &c., during the writer's proposed visit to India. Unfortunately the discussion was curtailed by want of time, but some statements of considerable interest were elicited.

It is not in any boastful spirit, but simply in justice to myself and to those present, that I here say that I am not a novice as regards the leprosy problems in India. It is thirty years at least since I first planned the tour of investigation which I now hope to accomplish. In the interval I have read almost everything which has come to hand on the subject, and have taken the evidence of a large number of medical men, missionaries, and others who have resided in India. Through the whole of this period I have held without misgiving the conviction—one which has strengthened as years advanced—that leprosy is in the main a food-disease, and that it spreads only to a very small extent by anything of the nature of personal contagion, and that the one article of food which is to be suspected is badly-cured fish eaten without being sufficiently cooked.

From the beginning of my interest in the subject I have recognised that the facts from India were more difficult than those from any other place to reconcile with this fish-hypothesis. Over and over again I have been assured that large sections of the Indian population who yet suffer from leprosy never eat fish. I have even been told by those whose judgment I hold in much respect that in persisting in applying that hypothesis to India I was going in the face of facts. On the other hand, I have been told by other observers that the statements of Hindoos, whether Brahmins or others, to the effect that they had never eaten fish, were not in the least worthy of credit. For a time, however, I may confess, my zeal somewhat waned, for I felt that the difficulties in stating the circumstantial evidence upon which that creed rests were such that it was hopeless to expect to convince others. This last attitude of mind was somewhat confirmed by the report of the Leprosy Commission which visited India twelve years ago. This Commission gave special attention to the fish-hypothesis, and returned, although apparently with some hesitancy, an adverse verdict. They felt convinced that in India the disease was developed for the most part *de novo*, that is, independently of contagion and heredity, and thought that it must in some way be due to food. They admitted that fish was the article to which suspicion seemed most to attach, but they declined to believe that this suspicion could be substantiated because a considerable number of lepers denied having eaten fish, and many of them belonged to castes to whom such food is forbidden.

The results of a visit which I paid to South Africa last winter were such as to give me a much clearer insight into the Indian question than I had ever had before. I there became impressed with the fact that it was not sufficient to ask a leper whether he had eaten "fish";—the question must be put in detail as regards all the forms of *cured* fish, and these must, of course, be named in his own language. Repeatedly the question, Have you eaten fish? was answered in the negative by men who, when *cured* fish was named, freely admitted it. Next I became quite convinced that commensal communication is possible, and that, in fact, it is in this way that in the Kaffir kraals of Natal the disease (which is there still very infrequent) has spread. Lastly, the lesson was impressed that, in order to arrive at a correct conclusion as to the influences under which the disease had originated, it was necessary to go over a large portion of the leper's life and ascertain where he had lived and with whom he had associated. The period of incubation is so long that it is very possible that the germs of the disease may have been introduced at some place very distant from that where the leper is found, and at a time concerning which his memory may not be very accurate.

The Basis of the Fish-hypothesis.

The fish-hypothesis, as at present understood, rests first upon the evidence which forces us to believe that the cause of leprosy must be some article of food. As the disease is a well specialised one, and as it occurs in almost all parts of the world, without regard to race or climate, we are next forced to take the step of believing that the inculpated article of food must be everywhere the same. A thousand facts convince us that the disease is not caused by poverty *per se*, by defective food, or by disregard of the ordinary laws of health. It is true that its most numerous victims are everywhere the poor, but it is just the same malady when it occurs, as it not infrequently does, to the prosperous. In this respect it reverses what we know as to gout, which is a malady chiefly incidental to the wealthy, but which will assume the same features in the inmate of a workhouse if he chances to have enjoyed opportunities for indulgence in gout-producing viands. If then we may safely hold that the cause of leprosy must be some article of food, and that it must be the same article in Norway as it is in the Indies, we have next to ask what article of food will meet the required conditions. From time to time and in various places many articles of food have come under suspicion, but there is no one which can bear the most cursory examination, excepting fish. I will not delay you by enumerating them ; let each try for himself, and he will soon be convinced. Amongst them there is not one which has encountered a hundredth part of the suspicion which has attached to fish. In all ages and in almost every country where leprosy has prevailed the popular belief has been that the eating of fish was in some way connected with it. References to this belief are numerous in the writings of old authors, and in a large majority of modern local reports on leprosy there occurs some allusion to the fish-eating habits of the community. The way in which the disease waned and ultimately almost ceased in Europe, with advancing civilisation, is also in harmony with this belief. It had advanced in inland districts with the advent of Christianity and the observance of fish-fasts, and it disappeared when Protestantism threw those fasts into disuse. Other influences also took their share, the development of agriculture and the increased production of other kinds of food being amongst the chief.

It is further most instructive to advert to the parts of Europe in which the disease lingered longest, and in some of which it still persists. Norway and Iceland have always been conspicuous for its prevalence. The former has from time immemorial had the largest fishing trade in the world, and of the latter an old geographer has written that it ought to be named " stock fish." In both of these places fish is still very largely consumed, and in both the prevalence of leprosy, in proportion to population, exceeds that of India. In the British Isles the disease lingered longest in Cornwall, Ireland, and the Shetlands, all of them places where there was much fishing and fish-curing. On the continent of Europe at the present day the disease is still met with in Spain and Portugal, at various places in the Mediterranean, on the shores of the Black Sea and the Baltic. It is unknown inland. It never did at any time prevail in the nterior of Russia, regions at a great distance from the coast, and under the influence of a church which forbids the use of fish as well as flesh on fast days. A glance at my "leprosy globe" or at any good map will at once claim attention to the fact that over the whole world the regional prevalence of leprosy is chiefly on the sea-coast, on islands, or in river valleys, and the further the enquiry on this matter is pushed, the stronger will this impression become.

It would probably be very near the truth to say that over the whole world at the present day the prevalence of leprosy is in ratio with the use of cured fish as an article of diet. This is by no means equivalent to saying that it is in ratio with fish-eating, for in places where fish is caught and is abundant a large part of what is obtained is usually eaten fresh and is, therefore, not injurious. In a general way, however, it may be stated that wherever fish is plentiful some of it will be consumed in the cured state. This arises in part from the fact that the catching of fish can often be effected only at certain seasons and in part from preference for the article in its cured condition. It is impossible to exaggerate the attractions which *quasi*-cured fish has for the uneducated palate. An article most repulsive to the sense of smell is often found to be seductively agreeable to that of taste. The desire for it is intensified whenever the common food is of a monotonous character and deficient in flavouring. Thus all rice-fed communities are eager to secure salted fish as a condiment, and are careless as to the precise stage of decomposition in which they obtain it. Of the almost universal liking for cured fish I had many illustrations during my tour in South Africa last spring. Shop-keepers in Natal villages assured me that the kaffirs (who are reputed to abhor fish) bought salt fish most eagerly and that some of them would undertake any amount of labour if it were to be rewarded by a present of sardines or herrings.[1] To these races these articles and all other kinds of salt fish were, until recently, an absolute novelty. The strength of the desire for salted fish in races which have been long accustomed to it is well shown in the fact that the legal contract with coolies imported into Natal contains a proviso that the employer shall supply weekly a certain quantity of it.[2]

Such then are some of the chief items in the indictment of fish food as being the cause of leprosy. They carry, I cannot but think, at first sight, an almost overwhelming probability with them. That probability becomes the greater when we are reminded that there is absolutely no other hypothesis in the field. Let us ask next what is the explanation of the fact that this hypothesis has not been adopted and has in fact, found, as yet, exceedingly few supporters. The statements which have weighed most in retarding its reception are those which have been repeatedly made that leprosy prevails in some places in which fish as an article of diet is not obtainable and amongst some whose race-prejudices or religious creed would entirely preclude its use. If these statements are really consistent with fact they are, of course, conclusive. They have, however, in many instances been shown to be founded on imperfect knowledge or misconception of the real bearings of the question. Thus, for instance, it was at one time asserted that leprosy was prevalent in Central Persia and that no fish was there procurable. It is now known that there is but very little leprosy and that some salt fish is eaten.[3] Again, it was asserted that Zulus were liable to leprosy in Natal and that their prejudice to fish was such that they would never eat it. The facts are that they have exceedingly little leprosy and that those who suffer from it are, with few exceptions, those who have lived at the industrial centres in Cape Colony and who have eaten imperfectly salted fish.

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[1] It is the same in Basutoland. I have been assured that a Basuto will spend his last shilling on a box of sardines, and will make the shopkeeper open it on the counter and will devour the contents as he walks home.

[2] Surely it is more than a mere coincidence that these coolies who bring with them leprosy into Natal bring also the demand for salt fish as a necessary article of food.

[3] Mr. Floyer, entering Persia *en route* to Barha Kard, records: "The people at a small village (Zaning Mulla) here took us for traders, and rushed up making most importunate inquiries for dried fish. My men entered into the joke at once, and made the poor people's mouths water by eloquent descriptions of the beautifully salted fish that my boxes contained" (p. 231).

Hansen's Bacillus.

Without doubt one of the most powerful influences which has militated against the acceptance of the fish-hypothesis, or, indeed, of any which should trace leprosy to food causation, was Hansen's discovery of the lepra bacillus. In some sense this discovery may be called an unfortunate one, for, unless I am much mistaken, it has thrown back our recognition of the true cause of the spread of leprosy by a quarter of a century. It was without doubt an important item of new knowledge; it was "light from Heaven," but for all that it has "led us astray." It may, however, be confidently assumed that it will not be permanently injurious to the cause of practical progress. The discovery of a direct relationship between this bacillus and cured fish, which is not improbably one which awaits us in the near future, would do more to remove incredulity in one month than the appeal to circumstantial evidence can do in a half century. Meanwhile, however, we must do the best we can without any direct proof of that relationship. Hansen's discovery rehabilitated the belief in personal contagion, and was allowed to discredit all other hypotheses. It consequently led directly to disregard of precautions as regards food, to renewed attempts "to stamp out the disease" by measures which, if useless, are unjust and very cruel. But we may fairly ask: Does the proved existence of a specific bacillus in the active stages of the malady go the length of proving that such bacillus can only have been received by the breath or the touch of a leper? Does it altogether discredit the food hypothesis? Do we know enough of the whole life-history of this bacillus to feel sure that its development may not in some way depend upon food? We do not assert spontaneous generation when we avow our belief that the great majority of leprosy cases arise *de novo*—that is, independently of inheritance or of any form of contagion. The housewife who discovers mould in her cupboard assumes at once that a damp, stagnant air has been for all practical purposes its cause, but in so doing she does not throw doubt on the specificity of the penicillium glaucum, or suggest that it is capable of spontaneous origin. The assumption rather is that its germ material is well-nigh ubiquitous, and that it will develop whenever the circumstances are favourable. May it not be the same with the bacillus of leprosy, with which we may also venture to associate that of tuberculosis? The last-named disease presents many remarkable features of apparent relationship with leprosy. Both are incidental to certain conditions of social life, and both are spread over almost the whole world, with but little regard to climate or to race. The chief differences are that tuberculosis is inoculable, that it shows no preference for sea-coast, islands, or river valleys, and that, although its prevalence may vary, it never wholly leaves its established haunts. That it may be communicated both by skin-contagion and by food most authorities are now prepared to admit.[1]

Possibilities as regards the Fish-Hypothesis.

One suggestion as to the way in which fish acts as a cause of leprosy is that in some conditions it actually contains the bacilli, and another, at least equally probable, that it contains only certain ingredients which stimulate a bacillus (possibly that of tubercle) already existing in the patient's system, to assume activity and differentiation. On the former a large quantity taken would simply multiply the opportunities for reception, any single one of which might have sufficed; on the second the larger the quantity obviously the greater the danger. Under either one there is a possibility that a very small quantity may suffice. We have here to remember that it is proved beyond question that the bacillus may remain quite latent for an almost indefinite period. Hansen, as our highest authority, fully admits this, and cases have been published (Abraham, Crocker and others) in which patients never observed the slightest sign of leprosy until ten or even twenty years had passed since their departure from the country where the disease had been acquired.

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[1] Morrow, in his article on Leprosy in "The Twentieth Century Practice of Medicine," writes: "It must be confessed that the precise manner in which the leprous virus is transferred from one individual to another is unknown." The suggestion which I have made of commensal communication meets, I would venture to suggest, all the facts. It must, however, be taken together with admission that a very large majority are of *de novo* origin.

Commensal Communication versus *Heredity*.

A suggestion has recently been made in reference to the precise mode in which leprosy may be communicated from one person to another, which goes far, I think, not only to reconcile the two schools of contagionists and non-contagionists, but to explain away for the most part the facts which have been supposed to imply hereditary transmission. It is that the only way in which the living bacillus can be received into the system is by the stomach, and that practically such communication takes place only when food is eaten which has been contaminated by discharges from a leper's hands. This suggestion fully accounts for the failure of all attempts to convey the disease by inoculation of the skin, and for the all but universal absence of instances of apparent contagion from the association of healthy adults with lepers, such as occurs both in leper asylums and in home-life. It may be taken for granted that, as a rule, all grown-up persons would decline to eat food taken directly from the hands of one who had sores on them. No such scruple would, however, be observed by young children, who, if offered sweetmeats, fruit, &c., by a leper-relative or nurse would probably accept it without hesitation. Now, it is almost solely in young persons that the cases occur which are supposed to imply inheritance, and the same may be asserted of the best authenticated examples of contagion. Dr. Hansen and myself have quite independently made the observation that when two or more children in the same family develop leprosy they are usually near together in point of age, a fact which suggests that there was during the years of their early childhood some influence at work in the home, which, later on, came to an end. My suggestion is that this period of danger was the one during which the leper who was the source of contagion had sores on the hands. To this mode of communication the term "commensal" may suitably be applied. Without going the length of denying the possibility of inheritance – or as Dr. Hansen would prefer to call it intrauterine contagion—I would yet suggest that commensal communication in early childhood may easily cover the whole ground.

The following extract from a statement made by the Rev. J. A. Ressler, of Dhamtari, C. P., at the Conference of Superintendents of

Leper Asylums in India (February, 1902), may suitably illustrate this topic :—

> "Three inmates of our asylum are brothers whose father was a leper and has died. The mother is still living, and is not a leper. The sons are grown-up men, the youngest being 18 years old. They have the anæsthetic form of leprosy. The fact that the mother did not get leprosy seems to point to non-contagion. The fact that the boys all did seems to point towards heredity, or at least towards inherited tendency to leprosy."

In my opinion, commensal communication is the probable explanation.

Leprosy Problems in India.

When it is recognised that concerning the increase or otherwise of leprosy in India the opinions of those on the spot are much divided, it becomes obvious that it is not a matter about which we need trouble ourselves to arrive at any definite conclusion. The main facts are clear. Leprosy has prevailed over India from time immemorial, and there is no reason to believe that its amount varies much from one half century to another. Certainly there was no ground for the panic which ten or twelve years ago attracted attention to it, and no greater reason for regarding it "a national danger" than there was a century ago. Probably, indeed, there is rather the reverse, for the balance of evidence seems to be in favour of a slight and gradual diminution. This was the conclusion at which the Commissioners of 1890 arrived, and no facts, so far as I know, have in the least invalidated it.

We have, however, in this fact of almost stationary prevalence, one which merits our most careful consideration. There is, possibly, no large district throughout the length and breadth of our great Indian Empire, concerning which it can be proved that leprosy is really unknown. There are many in which it is almost so, and not a few in which its ascertained ratio to the population is not greater than one in twenty thousand. It is to be noted here that this stationary prevalence is not only a fact for India as a whole, but with a few exceptions for every province, district, and town. The exceptions are, for the most part, easily explained, and go to confirm the rule rather than otherwise. A new industry—such as, for instance, the cultivation of tea—may have sprung up, or some charitable person may have established a home, and thus by attracting lepers into the neighbourhood may have deranged the statistics, producing an apparent increase where there was none really. When due allowance is made for local disturbing influences, such as we have mentioned, the fact comes out clearly that leprosy in India does not shift its incidence from one place to another. No local outbreaks are ever reported, the places which report a prevalence of one in twenty thousand and those which acknowledge to twenty times that number are the same places which made similar reports as far back as censuses will carry us.

The Registrars of Disease in India no more anticipate having to record an outbreak of leprosy at any particular place than they do one of gout. Surely this widespread but for the most part very scanty prevalence is a very strong argument against the belief that contagion is the ordinary mode of its spreading. The land produces year by year its ordinary crop, neither more nor less, but we never observe anything which in the least suggests the production and scattering of seed. In regions where population is dense, but where from year to year there is but one leper in twenty thousand persons, it is impossible to believe that if that one were the subject of a contagious malady the disease would not spread. It is to be noted that where the number is thus insignificant no fear arises, and for the most part no precautions are taken. These statements are, I believe, true of very large districts in India, and more especially of the inland parts of what is known as the peninsula, or Deccan. They suggest forcibly that the malady is due not to contagion, but to the use of some particular article of food not obtainable by the majority, and which those who suffer may possibly have eaten at some place distant from their homes.

Ratio of Prevalence in India and other Countries.

It will probably astonish many to learn that after all leprosy is not very prevalent on the mainland of India. The popular belief is that the disease is scarcely known in South Africa, and that it overruns India as a special curse. It is, as a matter of fact, in ratio with population almost as common in one as in the other. Let me add that in neither does it exceed that which, in spite of the boasted results of segregation, still obtains in Norway. In all the three places named its average prevalence is something less than 5 per 10,000. In Ceylon it does not reach 2 per 10,000, but in some of the smaller islands off the coast of India—Minicoy, for instance—where fish is eaten by the labouring population three times a day, its prevalence reaches the enormous ratio of 100 or 150 per 10,000. The fact is that the impressions formed by travellers, or even by residents who make no special investigations, are very untrustworthy. In some countries, as in South Africa, lepers carefully conceal themselves, whilst in others, as in India, seeking charity, they parade their miseries. The fact that after all leprosy is not inordinately frequent in India takes away much of the force of the objection so frequently urged against the fish-hypothesis, that fish is scarce in many parts of that country, and suggests that here as elsewhere the ratio between the disease and its supposed cause is well observed. We have however, of course, much left to be worked out in detail as regards special regions where prevalence is excessive.

It may be granted that if India stood alone as the home of leprosy, it is scarcely likely that the fish-hypothesis would have suggested itself, although, even there, popular suspicion in special districts has repeatedly attached itself to fish, and at the present time many believe that taking fish and milk together will produce the disease. Still, the general run of the facts would have appeared to be strongly opposed to such a suggestion. The facts which support the fish-hypothesis are obtained chiefly from other parts of the world, and concerning India, it is as much as can be expected if it can be shown that there are none which conclusively refute it.

Some facts there are which certainly support it strongly. The little island of Minicoy (off the southern extremity of India) offers probably unequalled opportunities for the investigation of the causes of leprosy. The disease prevails there in higher ratio to the population than in any other part of the world. Its inhabitants live on cocoanuts and fish, many of them eating three fish meals a day. The fish is eaten in various states of preservation. It is said that of four classes into which the population of five thousand is divided only the two lower suffer from leprosy. It would appear that we have but to ascertain what the differences are in the character of the fish consumed by the poorer and the richer classes on this island in order to put a finger upon that which is the cause of leprosy. Compulsory isolation has been enforced for centuries, but the supply of *de novo* lepers continues.

The population of Ceylon is somewhat more than three millions and a half, and the total number of lepers is estimated as 635. This is a ratio of about 1·8 per 10,000. It would appear that there is a slight tendency to increase, due, possibly, to the importation of Indian coolies for the tea plantations. There is a very comfortable leper asylum at Hendala, near Colombo, which receives 339 patients, and the Kalmuni hospital receives twenty-six more. The segregation is entirely voluntary, and there are no laws in reference to the disease. Ceylon presents few definite problems in respect to leprosy. Fish eating is a possible cause in all classes, and so far as I know, nothing is alleged as to the greater liability of any one class. As usual, it is a disease chiefly of the poor, and it prevails mostly near the coast. I am indebted to my friend, Sir William Kynsey, long the Inspector-General of Hospitals for the Island, for much information regarding Ceylon. He informs me that much salted fish is imported from India, and this matter ought to be inquired into.

Food Origin versus *Contagion in India.*

The dread of infection exists, we are told, to but a very slight extent in India. Lepers are, however, shunned as unclean in a religious sense, and are believed to be suffering for their sins and thus unfit for the society of their fellows.

On this point we have the testimony of Mr. MacNamara, who says:—

> "Although lepers move about among their countrymen, they are to a great extent isolated from them. Who ever saw a healthy native touch, much less eat with, one afflicted with leprosy? In many parts of India the fact of admitting a leper to a general hospital is sufficient to drive every other person out of it. The wealthy leper may purchase immunity from some of the social evils to which his poorer brethren are exposed; but even he is frequently obliged to leave house and home and wander as an outcast over the face of the earth, visiting shrines and holy places in expiation of his sins, which he believes have been punished by the infliction of leprosy. Rich and poor lepers, however, though living and moving among their fellow-men, are as isolated from them as were those condemned to the lazar houses in the Middle Ages."

It is easy to realise from such statements that the risk of commensal communication must be also, in the case of adults, extremely slight. We have a side-light thrown on the question as to the probability of communication of the disease by other modes of contagion. Clearly they must be but slight under such a *régime.* It must be remembered, however, that Mr. MacNamara's remarks apply probably to certain districts only, and that it is only in late stages that leprosy can be recognised.

Dr. Vandyke Carter, an authority surpassed by none as to the facts of Indian leprosy, gives us the following statement:—

> "Taking the more infected districts, we find that while much of the surface is covered by disease, yet the leper villages are not indiscriminately scattered. Thus the chief town always represents a chief 'focus'; next the villages immediately round are affected, and beyond these pass off, as it were, lines of leper localities in various directions, which may meet and blend or become continuous with similar lines in adjoining districts. At present I find hardly a single instance in which a leper village does not form either a focus or a part of lines or groups such as those now mentioned. No leper village is found to be isolated; all are connected with others immediately adjoining; the rare uninfected intervening villages being temporary or incidental exceptions. All these data may be said to point to transmission of the leprous disease *by human intercourse*—that is, by contagion."

Now, whilst entirely agreeing that leprosy spreads "by human intercourse," I would venture to submit that the suggestion of distribution by food is much more applicable than that of contagion. We have but to suppose that some storekeeper in the town or village had been in the habit of obtaining when he could consignments of salted fish and supplying it to his customers. The disease would then spread exactly in the manner which Mr. Carter describes, whereas, if contagion were at work, there would probably occur a severe outbreak now in one village and now in another, and there would be a rapid and general increase.

It is important to note that under the salted fish hypothesis, the making of roads and the development of commerce may become efficient agents in the diffusion of leprosy.

In the Berar and the Nagpur districts the disease is believed to be increasing. This may have been caused by the increased means of transit (since the introduction of railroads).

It has been, presumably, the introduction of railroads into South Africa which has carried leprosy from Cape Colony to the Orange State and the Transvaal.

Special Enquiries to be Undertaken.

It may be convenient if I now briefly advert to some of the more important enquiries which I propose to keep in view during my proposed tour in India.

(1) To obtain facts as to the trade in cured fish, having regard to its quality, the modes of curing, the quantity, and its destination.

(2) To enquire, in districts where it is asserted that no fish is obtainable, whether this is really true as regards salted or otherwise "cured" fish.

(3) To enquire at leper asylums whether the statements of inmates, to the effect that they have never eaten fish, apply to salted and dried fish.

(4) In all cases, in which a leper denies fish-eating *in toto*, to enquire at what age the leprosy began, and under what circumstances. It is now fully admitted that young children taking food from a leper's hands may contract the disease, and this is probably the manner in which most young persons do acquire it.

(5) To obtain evidence, from those qualified to judge, as to whether the statements made by certain Brahmins, &c., that they have never eaten fish, are trustworthy.[1]

(6) To endeavour to estimate the proportion which high-class Hindoos in the leper population bear to others.

(7) To visit localities where leprosy is reputed to be increasing. Assam presents one of the most interesting of these. During a period probably identical with that during which the tea-industry has developed there is reason to believe that leprosy has steadily increased. The suggestion I would make is that probably there has been a large importation of labour and with it of salted fish as food. This is what is occurring at the present time in Natal and possibly in Ceylon.

(8) To estimate as far as possible at leper asylums what proportion of cases may be reasonably attributed to commensal communication and what to *de novo* development. It will, I think, be fair to assume that all cases in which the symptoms have been shown in childhood, or even in young persons, are of commensal origin

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[1] A Hindoo proverb, quoted by Kipling in "Kim," declares, "Where there are no eyes there is no caste."

and that those beginning in adult life and without special history of exposure are of *de novo* origin. Upon the estimation of these proportions will depend to a large extent the question of the urgency or otherwise of segregation measures.[1]

(9) To enquire whether there are in India any sections of the community—" Hill tribes " or others—who are wholly free from leprosy whilst living near to those who suffer. Remarkable examples of such immunity have been recorded by several writers.

It would appear that we have a good instance of such exemption in the case of the Yakuts and Tunguses. These tribes live in Siberia, near to the river Lena. The former are of Turkish descent and the latter more distinctly Mongolian. The latter are hunters, and live chiefly in the pine forests on the hills ; the former live in the river valleys and on the coast, and engage in agricultural pursuits. The " Encyclopædia Britannica " states " that they catch fish even in the winter by making holes in the ice." There is no mention of fish in the account of the Tunguses. Dr. Sturmer, who had resided in Siberia, has reported that leprosy is very prevalent amongst the Russians and Yakuts, but does not affect the Tunguses, although, as he says, they live in the same climate and have the same food. " In some Yakut villages almost all the inhabitants are lepers." Very probably Dr. Sturmer is in error in thinking that the food of both is the same.

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[1] Although I am prepared to freely admit that commensal communication is one of the factors in the prevalence of leprosy, it may be doubted whether it is of much importance, above all it is very doubtful whether when *de novo* (*i.e.* dietetic) causes are removed the disease can maintain itself by this means. In the instance of one of the Pacific Islands, a community of leprous families was transferred to another island, with the result that the disease wholly died out. The same result is recorded to have occurred in Northern Brazil, respecting which Dr. Wright Hall in the *Leprosy Journal* for 1891, writes :—

" I myself know of a case in which leprous families of negro slaves were exiled deep into the fertile woods of Northern Brazil. In their exile they were furnished with means of rearing poultry, pigs, goats, of fishing, trapping game, of cultivating cassava, yams, plantain, maize, &c., and then they were left entirely to themselves. Among these exiles, when visited after the lapse of many years, leprosy was found extinguished ; a sound negro colony occupied the place of the old leprous one."

The result of Dr. Hansen's enquiries in North America as to the Norwegian lepers who had emigrated supported the same conclusion. In no instance had the disease spread. The same statement is true of the cases of leprosy (not a very small number) which come to reside in England. All facts, indeed, bear out the conclusion that if a leper community comprising families, some of whose members are healthy and some diseased, be removed from the place where the disease began to one where it is not known, the leprosy will die out in one or two generations.

Almost precisely similar facts are reported of the Indians and the negroes in Surinam (Dutch Guiana). There the Indian natives come down from their inland woods to trade, and, it is asserted, mix freely with the negroes. The latter suffer much from leprosy, and the Indians not at all. The Indians are hunters, not fishermen.

Hirsch quotes this statement on the authority of Uhlig, and adduces it as proof that the disease is not contagious. Uhlig, in an official report, states that near to the leper settlement of "Batavia" 500 native Indians live in the woods, and that they come down to visit the lepers, that they smoke with them, using the same pipe, and eat with them, and wear their clothes, and yet that during the thirty years that the settlement has been open, and this sort of intercourse has gone on, no Indian has ever contracted leprosy.

There remains, Mr. Chairman, one topic upon which I desire to say a few words. It is as to the practical outcome of acceptance of the fish-hypothesis of leprosy. A strong prejudice has been raised against it in some quarters from a mistaken belief that it might injuriously diminish the food-supply to the poor. The reply to this is that it would lead to the rejection only of articles which are in themselves unwholesome and, quite apart from leprosy, prejudicial to health. Nothing can be more certain than that the various kinds of salted and dried fish which are eaten in England are quite without risk as regards leprosy. It is probably only the very worst kinds of cured fish which are at fault; and what is chiefly required is simply a Government-inspection of fish factories with a view to enforcing efficient methods of curing. In some places, as for instance in South Africa, this might not be difficult of accomplishment, but in others great obstacles might be encountered, and a more hopeful plan would be to attempt the education of the consumer. The danger should be made widely known, and the importance of avoiding bad fish and of thoroughly cooking all kinds should be enforced. The aid of the missionary and of the native priest should be enlisted in this crusade. What is wanted in the first place is that the medical profession should, with patience, investigate the facts and record its verdict. That done, the rest would follow in due course.

NOTES OF CASES DEMONSTRATED IN THE CONSULTATION THEATRES.

MEDICAL CASES.

BY WM. EWART, M.D., F.R.C.P.

Tuesday, December 2, 1902.

Features of clinical interest were presented by each of the six cases sent up for consultation, and also by the four cases exhibited by the Lecturer.

Abdominal Tumour or *Cramp?*

A fairly healthy, but delicate-looking, Swiss girl, of 18 years, had suffered for several months from frequent abdominal pain, to which she referred as "Krämpfe" or spasms. The abdominal wall was somewhat rigid on examination, but it was possible, nevertheless, to feel the deep pulsation concerning which Dr. Dixon desired an opinion. Taking into consideration the duration of the symptoms, the patient's aspect and nutrition, the lamentable state of the mouth—most of the molars being reduced to mere stumps—the marked inflation of the stomach, and the resulting slight displacement of the heart, it appeared probable that this was an instance of a "phantom" rather than of an aneurysmal tumour, and that the tonic spasm of the abdominal muscles was, like the reflex relaxation and abnormal pulsation of the aorta, a secondary result of the unhealthy state of the digestion.

A Case of Palpitation.

Palpitation after solid food was the leading symptom in another case (a man aged 47 years) analogous to the preceding. The patient had been obliged to restrict his diet and was thin and pale. The heart was irritable, the pulse somewhat resembling the Corrigan type, but no diastolic murmur was audible. The stomach was markedly inflated, and the heart displaced towards the middle line. As in the previous case, rest and careful "feeding-up" were indicated, besides the all-essential dental treatment.

Anorexia with Lower-sternal Dysphagia.

These symptoms, in a man of 43 years, were briefly commented upon as indicating probably the existence of carcinoma of the cardiac end of the œsophagus with implication of the cardia. Aneurysm had been suspected, and a bougie had not been passed. The case is still under observation.

Hæmatemesis or *Hæmoptysis ?*

Between these conditions an immediate diagnosis is often difficult because of the unsatisfactory nature of the account given to us, and of the undesirability of a searching examination, whether of the lungs or of the stomach. This patient, a powerful and apparently healthy, though rather pallid, woman, makes a definite statement that cough accompanied the first hæmorrhage, and the clotted blood which the patient has brought up on her way hither is more than could be accounted for by any ordinary buccal or pharyngeal bleeding. The slight dulness on percussion of the right apex corroborates the suggestion arising from the patient's statement that the blood comes from the chest. Its rather dark colour suggests the pulmonary artery as its origin, rather than the bronchial vessels. I would not, however, without further consideration, conclude that it did not come from the stomach.

Assuming that it had come from the stomach, the case would be suggestive in connection with the possible mode of *causation of the gastric hæmorrhage.* Gastric ulcer is usually diagnosed in connection with the occurrence of hæmatemesis, but in many cases there is no strict evidence that this lesion exists. The sponginess of the gums noticed in this patient suggests that other districts of the mucous membrane may be in a similar hæmorrhagic congestive condition. It is therefore conceivable that in a number of cases the occurrence of hæmatemesis is not the result of an ulceration but rather of a venous congestion of the gastric mucosa with or without superficial erosions. For many years I have regarded the diagnosis of gastric ulcer when based only upon the fact of hæmorrhage as inconclusive, and the same views are entertained by other observers, as was shown at the recent discussion on Hæmatemesis before the Medical Society of London (November, 1902).

The immediate indications applicable to both hæmoptysis and hæmatemesis would be rest, avoidance of chill, depletion by purgatives, but not necessarily in our present patient by venesection, although the pulse is large and well filled. If on further enquiry the hæmorrhage is judged to be gastric, exclusive rectal feeding will be enforced, water only being allowed by the mouth, or, as I have recently been practising, strong gelatine jelly, which lessens the hardship of starvation, and may be useful as a local styptic. I administer about one pound of this jelly in twenty-four hours. If, on the other hand, as I incline to think, this patient is suffering from hæmoptysis, the special indication is to quiet the cough so as to permit clotting to take place in the depths of the lung and to plug the bleeding orifices.

Bronchiectasis or *Phthisis ?*

The thin and rather worn aspect of this poor woman, a native of a hilly district in Russia, suggests phthisis, and the dulness discovered on percussion of the right apex further favours that view, against which may be urged, however, the energy of eye and manner, and the absence of marked feverishness. The fingers are slightly clubbed with incurvation of the nails, and this is a feature of bronchiectasis. The special point observed by Dr. Dixon, and submitted for diagnosis, is, however, the state of the left posterior base. This is dull and presents tubular breathing and crepitations, which also occur at the right posterior base. The crepitations are of small size, soft and sticky, such as are heard in conditions of congestion with or without œdema. This condition, often observed in old people as a chronic ambulatory affection, is well described as moist or "*sodden lung*," a name given to it by the late Sir Andrew Clark. Moreover, the patient's expectoration is rusty, as in a case of pneumonia. The lesion before us is probably not lobar pneumonia but a congestive condition bordering upon it. As there are grounds for suspecting the existence of chronic bronchial catarrh and of bronchiectasis, it is not improbable that a dilated bronchus at the base, and the neighbouring tissue, have suffered irritation from the prevalent cold weather, and that a sub-inflammatory congestion has led to the partial consolidation observed and also to the râles.

Hæmorrhage is a well-known complication of bronchiectasis, but it is not usually of the rusty pneumonic character, but rather of the bronchial type with expectoration of free blood. In conclusion I would regard this case as one of bronchiectasis, with subacute pulmonary congestion and catarrh, but I strongly suspect the association with it of tubercular phthisis.

Silent Percussion.

Whilst I was discussing some of the points in the history of this case, my hands were engaged in practising a method of percussion which I have been often using, and which I was recently demonstrating to my pupils under the name of "silent percussion" or "palpatory percussion." Another name which would very fairly describe its nature and its value would be that of "percussion for the deaf." It is not our object with this method to listen to the percussion, or even to hear it. In this instance, neither you nor I have heard any sound. Yet I have succeeded in accurately mapping out the dulness of the right apex, as you will now perceive from the usual demonstration-style of percussion. I cannot now enter more closely into the details of the method, which will shortly be published, but will merely point out its chief practical advantages. It can be practised in noisy surroundings, it is exceedingly easy of performance, and, as the percussion stroke is so light, it cannot be resented by the most sensitive of patients.

Ataxic Paraplegia, or *Disseminated Sclerosis ?*

This is an instance of profound ataxia of the lower limbs in a tailor, aged 35 years, the father of healthy children, temperate, and free from syphilis. He can hardly stand with the help of two sticks when his eyes are open, and is quite unable to stand with his eyes closed. Yet in the recumbent position he can extend the knee against all the resistance which I can offer. The slightly spastic character of his gait, and the exaggerated tendon reflexes, justify the other name "spastic ataxia" sometimes applied to this affection which I diagnosed on first examining the case after admission. This chronic affection is characterised by predominating ataxia with varying degrees of spasticity, and eventually by flaccid paralysis without any proportionate loss of sensation. In our patient there is only very slight blunting of the cutaneous sensibility of the left foot and leg; but there is a curious history of an unexplained ephemeral attack of hemi-anæsthesia, when he was 19 years of age; and numbness and pins and needles were among the symptoms of onset ten years ago. The mind and the memory have remained absolutely clear. There was marked anæmia which is fast disappearing under treatment, but the spinal symptoms are practically unchanged.

The etiology of ataxic paraplegia is obscure, and the present case throws little light upon it, but merely confirms the previous observations that syphilis has no share in its production, and that its causation seems to be sometimes associated with anæmia and blood change.

As regards the diagnosis, tabes can be definitely excluded in consideration of the absence of the symptoms of Romberg and of Argyll-Robertson, and of the characteristic gait. But the case acquires unusual interest owing to the circumstance that it had been diagnosed and treated by highly competent observers as a case of disseminated sclerosis. At the present time the patient may be pronounced free from the well-known signs of that affliction. On examination we fail to detect any nystagmus, any intentional tremor, any scanning speech, and we are driven to the conclusion that he is suffering from ataxic paraplegia; although at some previous period the symptoms were so indefinite as to suggest to neurologists the diagnosis of multiple sclerosis.

The treatment which I have adopted is the only treatment at present known to be of any service—rest in bed, feeding, regulated exercises in the recumbent, and subsequently in the erect position; and with these measures I have associated the administration of mercury and iron and of the hypophosphites for the anæmia. The result has been satisfactory, inasmuch as the patient has gained weight and strength, and a certain degree of stability, and a much healthier complexion, and feels much stronger and better in himself. But the spinal symptoms remain practically speaking unrelieved.

BY C. THEODORE WILLIAMS, M.D., F.R.C.P.

Tuesday, December 9, 1902.

The Clinical Features of Bronchiectasis.

In demonstrating several cases of bronchiectasis, Dr. Theodore Williams gave a brief account of the clinical features of the disease. Speaking firs on the *causes* of bronchiectasis, he said, these were three in number: (1) Inflammatory affections of the walls of the bronchial tubes. These weaken the elastic force of the wall and thus allow it to yield to the pressure of the contained air, with the result that permanent dilatation of the bronchial tubes is produced; similar results will follow degenerative changes in the walls of the tubes, as these are attended by atrophy of the elastic tissue, cartilage and other supporting structures. (2) The pressure of a tumour on one of the larger bronchi is another cause of bronchiectasis. The tumour, by obstructing the bronchus, leads to the accumulation of secretion in the distal parts of the air-passages, the walls of which yield to the abnormal pressure. Such a condition has often been mistaken at *post-mortem* examinations for one of multiple abscesses in the lungs. The cut surface of the affected part of the lung shows numerous *quasi*-pustular points; these are readily mistaken for abscesses, but are really the smaller bronchial tubes dilated and filled with accumulated secretion. (3) The third cause of bronchiectasis is abnormal pressure of air. This arises when some considerable part of the lung is consolidated or obliterated by disease, so that it is not able to expand. In these circumstances the unaffected portions of lung are subjected to unusual pressure during each inspiratory act, and thus the elastic tissue of the bronchial walls is overstretched. This in time produces permanent dilatation of the tubes, or bronchiectasis.

There are two different *forms* of bronchiectasis, viz., the cylindrical and the globular form. In the *cylindrical* a considerable length of the affected tube is uniformly increased in calibre. The *globular* form is marked by localised dilatations forming cavities which lead off from, and communicate with, a bronchial tube of approximately normal dimensions. These two varieties differ in their mode of origin. The cylindrical form is a common result of pleurisy where the lung has failed to expand on removal of the fluid. The calibre of the tubes is increased as a result of augmented air-pressure, and further, the shrinking of pleural adhesions and of the newly-formed fibrous tissue in the lung substance drags on the walls of the tubes and is a further factor in promoting their dilatation. The globular form of bronchiectasis occurs as a consequence of bronchitis, pneumonia, and other pulmonary affections. The walls of the bronchial tubes under the influence of these diseases become the site of degenerative changes, and at various points yield so as to form sacculated dilatations. In these, secretions such as pus or muco-pus accumulate, and this forms a further element in the extension of the cavity. The dilatation in some instances proceeds to such an extent that the wall of the cavity becomes extremely thin; it may, indeed, be reduced to a mere basement membrane so transparent that the elements of the pulmonary tissue may be readily seen through it. Should the secretion which accumulates in these cavities become fœtid, as it is very apt to do, a further cause of degeneration and weakening of the wall of the cavity is provided. The septic elements interfere with the nutrition of the neighbouring tissues, and hence the natural elasticity and resilience of these are still further reduced.

The pulmonary *symptoms* of bronchiectasis include cough and expectoration. The cough has a violent and convulsive character and continues until the secretion is expectorated, or, sometimes, until vomiting is caused, when, at the same time, there is expulsion of the accumulated secretion. The cough then ceases, and a period—it may be a long period—of quietude supervenes, until further accumulation demands a repetition of the expulsive efforts. A feature of the expectoration is its quantity. This often amounts to a pint or more in twenty-four hours. It is usually muco-purulent in character and may have a faint sweetish odour. Not infrequently, however, it becomes fœtid. The patient with these symptoms may continue in fair general health for years, the bronchiectatic cavities being regularly emptied by the act of coughing. On the other hand—and particularly if the secretion becomes fœtid and is to a greater or less extent retained in the air-passages—serious complications may ensue. As a result of absorption a general septicæmia may develop, and septic abscesses may form in various parts of the body. Dr. Theodore Williams has known an abscess of the brain produced in this way. Another possible consequence is the development of a low type of pneumonia; and when the cavity is situated near the surface of the lung, pneumothorax and septic pleurisy may complicate the position.

The existence of cough and muco-purulent or purulent expectoration, together with the physical signs of pulmonary cavity, necessitates consideration of the diagnosis between bronchiectasis on the one hand and phthisis pulmonalis on the other. In this respect the physiognomy of the patient becomes of considerable moment. In each disease, in addition to the symptoms just mentioned, there is more or less disturbance of the pulse and respiration. But in bronchiectasis the patient has a healthy—often, indeed, a florid—appearance, and is not wasted as is the subject of pulmonary phthisis in the stage of cavitation. When well cared for, as in hospital for example, he readily gains weight and is not the subject of progressive emaciation, as occurs in tubercular disease. His condition, as a rule, is one of local disease, without resultant febrile disturbance, whilst with tubercle there is a state of general ill-health, with more or less pyrexia. Another distinction is found in the situation of the pulmonary cavities. These in bronchiectasis are generally at or near the bases of the lungs, and even if, as is sometimes the case, they occur in the upper part, they do not correspond in position to the usual sites of phthisical cavities. It must be remembered, however, that phthisis pulmonalis sometimes causes basic cavities, and also that bronchiectesis may become grafted on to a pulmonary tubercular process.

The most effective *treatment* in cases of bronchiectasis is the creasote vapour bath. The patient is placed in a room, the air of which is charged with creasote, and this usually promptly reduces the excessive secretion. Operation with a view to drain the cavities has been attempted, and occasionally with gratifying results. But in most cases the bronchiectatic condition is widely spread rather than of limited extent, and in such circumstances it is hopeless to encourage surgical interference. When, however, there is evidence that the disease is strictly localised, an operation should be advised. Dr. Williams said he had never seen the patient made worse by such a course, though he emphasised the statement that only a minority of the cases offer a prospect of cure by the surgical art.

The Significance of Clubbed Fingers.

Several of the patients whose cases are outlined below exhibited more or less clubbing of the finger-tips, and Dr. Theodore Williams directed attention to this fact and made some remarks concerning it. The condition is a somewhat curious one and is difficult of explanation. It is found in some, but by no means in all cases of bronchiectasis, and it is a feature also met with in certain other diseases. Sometimes statements are made that it is distinctive of chronic phthisis or of chronic cardiac disease. But this is not correct. That it may occur in these diseases is beyond dispute, but it may also be the consequence of bronchiectasis, empyema, dysentery, etc. Further, its development is not limited to the chronic forms of these diseases. On the contrary, it may appear in the course of a few days in the case, for example, of a fairly acute empyema, and on evacuation of the pus may rapidly disappear. The exact changes in the digits are said to be an increase of the fat, a diminution of the proportion of lime salts in the tissues, and some thickening of the rete mucosum. In some instances the changes are not limited to the soft tissues, but there is also more or less periostitis and thickening of the bone, and this may apply to the digits both of the upper and lower limbs. Such cases form a connecting link between simple clubbing of the fingers and hypertrophic pulmonary osteo-arthropathy, which, in turn, is related to the more generalised condition of osteo-arthritis. The causes of these conditions and their relationship to chronic pulmonary disease is very obscure, but it is probable that the explanation is to be found in the absorption of septic material and its distribution by the blood-stream.

Cases of Bronchiectasis.

(1) Male, age 40, the subject of bronchiectasis for the last eighteen months and showing marked clubbing of the finger-tips, with thickening of the distal third or so of the bones of each forearm and of the tibiæ.

(2) A lad of 15 years with a history of pleurisy and bronchitis and showing the physical signs of excavation over the posterior base of each lung.

(3) A man having evidence of a cavity in the lower lobe of the left lung and distinct clubbing of the finger-tips. The expectoration averaged as much as 1½ pints daily.

(4) This case had a very interesting causation. The patient, a man age 36, had had an attack of diphtheria followed by paresis of the soft palate and pharynx. This had necessitated the use of a nasal tube for the purpose of feeding him. Unfortunately this had on one occasion been used in such a fashion as to introduce foreign matter into the trachea. The result was a septic bronchitis with resulting bronchiectasis. Dr. Williams related a second case with a parallel chapter of events.

BY ROBT. L. BOWLES, M.D., F.R.C.P.

Tuesday, December 16, 1902.

A Case of Tuberculous Pleurisy and Peritonitis.

This case was a good illustration of the capacity for recovery even in instances of widely-spread tuberculous disease. The patient, a lad of some twelve years, had been under the care of Dr. Thorpe since the early part of the present year. At the onset he had a sharp attack of pleurisy with effusion on the left side, and associated with this a more or less generalised bronchitis. After a month or so, physical examination detected considerable prominence of the abdomen, with a definite sense of abnormal resistance in the left iliac region. Subsequently a distinct mass was found in this part of the abdomen, and still later, more or less intumescence was present over the whole of the lower half of the belly, with more definite localised thickenings in several situations. The development of these physical facts coincided with considerable depreciation of the boy's general health. He lost weight and became very thin. There was, however, but little pain, the habit of the bowels continued undisturbed, and there was little or no elevation of the temperature. After some two to three months a more favourable movement was appreciable. The boy obviously began to mend, and the prominence of the abdomen became less marked. Progress has continued until the present date, and now the condition of the abdomen presents no considerable departure from normal. The first feature of the case to note is the sequence of the abdominal affection upon disease above the diaphragm. It can hardly be doubted that both conditions were essentially tubercular in character, and the order of events is not very unusual. In other instances the progress is reversed, and a primary abdominal affection gives rise to pleurisy or other thoracic disease. This may be seen sometimes in tubercular peritonitis. Sub-diaphragmatic abscess is another condition which frequently leads to a basal pleurisy. A second feature of the case which may be emphasised is the existence of tubercular peritonitis without evidence of ascites. Though the abdomen was conspicuously distended and was over the greater part of its extent dull to percussion, there were at no time evidences of fluid in the abdominal cavity. In other cases of tubercular disease of the peritoneum ascites is an early and prominent feature. So much, indeed, is this the case that, in the absence of cardiac and renal disease the occurrence of ascites in a child is a fact strongly suggestive of disease of the peritoneum. But in the present instance, so far as can be judged, there was little or no fluid effusion, and the pathological facts were altogether of the nature of thickenings and adhesions. Of course, in the presence of such facts, it has to be remembered that fluid, at least in small quantity, is not readily detected, as it is apt to be confined or shut in by the adhesions, and is thus not free to gravitate. In such circumstances the variations of percussion according to the position of the patient will not be obtained. A third fact of which note may be taken is the almost entire absence of pain in spite of the existence of serious organic abdominal disease. And, in the last place, is the very satisfactory recovery of the patient. No doubt tubercular peritonitis is at all times a condition justifying anxiety, and in not a few instances it leads to a fatal termination. But there is a more favourable side to the shield, and the present case is an illustration of it. In this respect it may be noted that the disease during the whole of its course was of a chronic and quiescent order. Pain and fever were almost absent, and at no time was there diarrhœa. It is these facts to a large extent on which a hopeful progress is founded. When the opposite conditions obtain the outlook is much more serious. Considerable abdominal tenderness, an obstinately elevated temperature, and looseness of the bowels, give to any case of tubercular peritonitis a decidedly grave aspect, though even here judicious treatment may accomplish much. Rest in bed, an abundant supply of fresh air, careful feeding, and the checking of diarrhœa, as by large doses of bismuth subnitrate, will often guide even an unpromising case to a successful issue. Fresh air and suitable food are, indeed, the most important measures in all cases. In addition, local applications to the abdominal wall are also useful. Evidences of more or less active inflammation need, of course, soothing remedies, such as moist heat, which may be associated with an ointment of belladonna. In more chronic cases mercurial liniment or an ointment of iodine or iodoform should be used with energy and perseverance.

Dyspnœa and Night-Sweats.

In one of the cases demonstrated by Dr. Bowles—a young woman the subject of mitral disease—it was the main ground of the patient's complaint that she suffered at times from breathlessness, and that at such times she was much troubled with night-sweats. The association of these two symptoms is recognised as a common event in phthisis pulmonalis, but in the present case there was not the slightest evidence of the existence of pulmonary tubercle. Nevertheless, the facts are of considerable interest in connection with a suggestion made some years ago by Dr. (now Sir) Thos. Lauder Brunton. This was to the effect that the night-sweats which so frequently mark the course of phthisis pulmonalis are the result of stimulation of the sweat-centres in the spinal cord by an excess of carbonic acid gas in the blood. In ordinary circumstances the centre most sensitive to this stimulus is the respiratory centre, and this, when roused into extra activity, increases the rapidity of the thoracic respiration, and thus gets rid of the accumulating carbonic acid. But when the sensitiveness of the respiratory centre has been reduced by a sustained claim for unusual effort, and by frequent coughing, it will respond less readily than usual to stimulation. Hence in such circumstances carbonic acid gas may be present in the blood in a decidedly excessive amount without producing a corresponding activity of the respiratory movements, and this will be especially liable to occur during sleep, that is, when there is a natural diminution of the excitability of the respiratory centre. At such time, therefore, the venosity of the blood may be sufficiently marked to stimulate the sweat-centres without at the same time producing more vigorous respiratory efforts. The order of events in brief, according to this view, will be: (1) diminution of excitability of respiratory centre from over-exertion (coughing, etc.) during the daytime; (2) the addition to this of the natural depression of the centre which accompanies sleep; (3) as a consequence, carbonic acid gas in considerable excess accumulates in the blood—that is, the blood becomes excessively venous; (4) the highly venous blood stimulates the sweat centres of the cord and so produces sweating.

The facts of the present case are in harmony with this theory. It is when the patient suffers from breathlessness that she is troubled with night-sweats. The exaggerated claim on the respiratory centre during the day is followed by reaction during the night, and this, as above explained, brings in its train the development of night-sweats.

Three other remarks may be made in connection with this suggested explanation of night-sweats. First, it explains not only the night-sweats of phthisis but also the profound depression which accompanies them, for excessive carbonic acid gas in the blood interferes with tissue change in all parts of the body. In the second place, the remedies used to check night sweats are among those which have a stimulating action on the respiratory centre—atropine, picrotoxine, zinc oxide, etc. Acting on the view that the way to check the night-sweats of phthisis is to stimulate the respiratory centre, Sir Lauder Brunton writes: "I have given at night . . . . nux vomica and strychnine, and I have found that the sweating is usually arrested by them. A small dose is sometimes sufficient, but occasionally it must be steadily increased." Again, as a further demonstration of the relationship between sweating and respiratory inefficiency, may be noted the common occurrence of sweating in the period immediately preceding death, that is, when, as a consequence of failing respiration, the blood is becoming excessively venous.

SURGICAL CASES.

BY J. JACKSON CLARKE, M.B., F.R.C.S.

Wednesday, November 12, 1902.

Examples of Tuberculous Disease of the Knee-joint.

Gentlemen,—The four patients now before you, two girls, aged respectively 6 years and 7 years, and two young men of 25 years and 27 years respectively, have come under my care within the last twelve months.

These cases may be studied as illustrations of the several forms of treatment which tuberculous disease of the knee-joint may demand.

(1) *Conservative treatment.*—The younger girl had heat and swelling of the right knee, a fixed bend of some 15° to 20°, and much pain. I ordered for her the Thomas's knee-splint, and having adjusted it myself, watched the course of events for two months. Progress being satisfactory, she was sent to the seaside for three weeks, with the result that the stiffness and the bent condition of the knee, as well as the pain, heat, and swelling, have disappeared. When removed from the splint the knee, which is now straight, can be bent without pain or resistance for 15°. So far the patient has responded well to conservative measures. In some cases of genuine tuberculosis of joints perfect function is restored, but it must be strongly impressed on the mind that the course of treatment is necessarily a long one—two years as a minimum, and more often longer. Care has to be taken not to mistake syphilitic joint-disease in children for tuberculosis. There may be no other striking signs of congenital syphilis, and yet the disease in the joint may be syphilitic: in such cases the response to mercurial inunction and other antisyphilitic remedies is usually readily obtained, and if the condition is taken in time the functional result is often very good.

In the present instance there is no other evidence of congenital syphilis, and a favourable result has been obtained without any antisyphilitic treatment; good food, fresh air and cod-liver oil, together with perfect rest to the diseased joint, have been the measures employed.

(2) *Erasion of the knee.*—The next two patients, the girl aged 7 years and the young man aged 25 years, have each undergone the operation of erasion, otherwise termed arthrectomy. In the case of the girl, rest in bed, with weight extension and good nursing for two months, not only failed to improve the condition, but the swelling of the knee increased, and the synovial membrane above and at each side of the patella developed that elastic character which leads one to suspect that the infection is almost limited to the membrane; such cases are the most favourable for erasion.

The man is a hunchback from extensive spinal caries, and in his case the affected joint had the same character as that of the girl. The joint in each case was freely opened by sawing through the patella, and the whole of the synovial membrane and the semilunar fibro-cartilages and every part of the articular surface were freely removed. The patella was reunited by wiring in the case of the man, and by passing a stout silk ligature round the two parts in the case of the girl. Repair took place rapidly and soundly, and in each joint slight flexion can now be carried out without causing pain. Ought we to aim at getting movement in a joint after erasion has been done? We have seen that this sometimes results after treatment on the conservative plan, but I think it is a great mistake to attempt it after erasion. Many patients, years it may be, after erasion has been skilfully carried out, come to my notice on account of a fixed rectangular deformity, which gradually ensues after the patient has left hospital. In order to prevent this, I employ a simple instrument consisting of two light lateral steel uprights and provided with a knee-cap such as each of these two patients is now wearing. Thus equipped, the patient may begin to walk six weeks after the operation, and the instrument should be worn until all tendency to contracture of the joint has passed away.

(3) *Excision of the knee.*—Complete excision of the knee is a severe operation, and is rarely demanded. In the case of this patient, a man, aged 27, I was obliged to do it on account of an acute tuberculosis of the joint, the only alternative being amputation through the thigh. The active trouble in the knee was of two months' duration, and for a month the patient had been in bed with a weight extension, and in most favourable surroundings. The thickening of the synovial membrane was of moderate degree. Although the conditions were of the best, the knee suddenly became worse; the joint filled with fluid, and most painful "startings" of the limb were frequent, and there was some febrile reaction. With the help of my colleague, Mr. John Poland, I did a complete excision of the joint; in so doing a large quantity of thin, dark pus, the whole of the thickened tubercle-beset synovial membrane, with the femoral condyles, the patella, and a liberal slice of the upper end of the tibia were removed. In the inner tuberosity of the tibia a tuberculous cavity was disclosed, which was surrounded, save where it opened into the joint, by dense bone. The tuberosity which contained this cavity was sawn off. The wound was well washed out with 1 in 20 carbolic; the femur was then firmly *wired* to the tibia, and the soft parts sutured, drainage tubes being placed in the posterior angles of the wound. On the third day the part was dressed and the tubes were removed; healing was normal. The tuberculous focus in the tibia must have been present from childhood in a quiet state. These cases of acute tuberculosis of joints not infrequently form the starting-point of a general tuberculosis, but I am happy to say there is no evidence of such a dire calamity in the present case. Thanks largely to the wiring of the bones the patient has been free from pain ever since the operation. He wears an instrument designed to transfer the weight of the body to the ischial tuberosity, and to prevent any movement at the plane of section of the bones. After this instrument had been applied I was able to let the patient leave the hospital five weeks from the date of operation. It is now six weeks since the operation, and he is able to get about with the aid of crutches, and in a few days he is going to Yorkshire for a month's holiday.

DISEASES OF THE EYE.

BY E. TREACHER COLLINS, F.R.C.S.

Friday, December 5, 1902.

Serous Irido-Cyclitis, apparently Idiopathic.

This patient, a woman aged 32 years, had been suffering from iridocyclitis and so-called "keratitis punctata" in her right eye for about ten months. There was still some circumcorneal injection; the iris was dull and discoloured; the pupil, though regular, had not dilated fully under atropine; and on the posterior surface of the cornea, at the lower part, were some patches of deposit ("mutton fat" patches) of inflammatory cells. The tension of the eye was normal.

No constitutional cause could be discovered which would account for the disorder. There was no history pointing to syphilis or any joint affection.

The long duration of the inflammatory symptoms in some of these cases was commented on, and also the necessity for speaking guardedly in reference to the probable course of the affection when the patient is seen in the early stages of the attack.

The treatment likely to prove most efficacious was stated to be the application of an atropine ointment to the eye to keep the inflamed parts at rest and to prevent the formation of posterior synechiæ, the administration of mercury internally, and the constant application of heat to the eye. A Japanese muff-warmer placed over a layer of cotton wool applied to the eye was shown as a simple and satisfactory way of keeping up the influence of constant dry heat.

Recurrent Iritis in connection with Gonorrhœal Arthritis.

The patient, a man aged 48 years, had twenty years previously had an attack of gonorrhœa, which was followed by "rheumatism" affecting several of his joints. At the same time his right eye became inflamed, and since then he had had quite ten similar attacks at varying intervals. The present one had commenced about a week ago.

There was considerable photophobia and some ciliary injection; the iris was dull, and the pupil had a very irregular toothed margin and did not respond at all to atropine.

It was mentioned that the most frequently recurrent of all forms of iritis is that which occurs in connection with gonorrhœal arthritis. The condition is frequently described as "rheumatic iritis," the occurrence of the joint affection being readily elicited, but the fact that this was preceded by gonorrhœa not being so easily ascertained. Patients once affected with this form of iritis can never be said to be free from the liability to a fresh attack.

It was proposed in this case, when the acute symptoms had again subsided, to perform an iridectomy, not so much with the hope of avoiding fresh recurrences, as with the idea of preventing the pupil becoming blocked should another attack occur.

Sequelæ of Iritis in Congenital Syphilis, and Transverse Calcareous Film of the Cornea.

A young woman, aged 18 years, having scars at the angles of the mouth, and with a physiognomy generally suggestive of inherited syphilis, stated that her sight had been defective as long as she could remember. She could only see $\frac{6}{60}$ with each eye.

The margin of each pupil was irregular, and bound down to the surface of the lens. No dilatation of either was produced by atropine.

In the right cornea, a short distance from the margin on each side, and a little below a line passing horizontally across its centre, was a slightly raised, dense, white opacity. The space separating the two opacities was clear. In the cornea of the left eye, at a similar position and a little below the centre, was a slightly raised band of white opacity passing horizontally across it, but not extending to the extreme margin on either side.

It was pointed out that iritis in congenital syphilis occurs most frequently in infancy—that is, in the period corresponding to the secondary stage of the disease. It is most probable that it was at that time of life that this patient's eyes became affected. Iritis may also occur at a later date as a result of congenital syphilis, when it accompanies interstitial keratitis. The iritis of syphilis, either congenital or acquired, unlike that of the previous patient, shows no tendency to relapse.

The transverse films of the cornea, situated opposite the palpebral apertures, have most likely been formed much later in life. Indeed, that in the right eye is still in the process of formation, consisting only of two peripheral opacities as yet unconnected.

These transverse films are more frequently met with in blind eyes than in those which possess any vision.

Microscopical examination of a cornea so affected shows that the opacity is not in the substance of the cornea, but that it is due to new formation of fibrous tissue and calcareous granules between the epithelium and Bowman's membrane. Hence its appearance of being raised above the surface.

The opacity can sometimes be scraped off, the substantia propria of the cornea being uninjured by the operation. It is proposed in the present case to enlarge the pupil by doing an iridectomy, and to scrape off the opacity from the right cornea.

Ophthalmoplegia Interna and Interstitial Keratitis.

A boy aged 14 years, very deaf, with a physiognomy of congenital syphilis, scars at the angles of the mouth, and the central upper incisor teeth slightly notched, first came under observation in February, 1898. At that time, and ever since, both his pupils have been widely dilated and immobile.

His right eye could see $\frac{6}{12}$ with + 1·5 D., but he required + 4·5 D. to enable him to read J. i., showing that not only is the sphincter muscle of his iris paralysed, but also that he is unable to use his ciliary muscle.

In his left eye, when he first came under observation, he had commencing interstitial keratitis; at no time had there been loss of power in the movements of the eyes in any direction. At first it was thought that the dilatation of the pupils and loss of the power of accommodation might be due to atropine, though he denied having used anything to his eyes. The persistence of these symptoms, however, makes it certain that they are due to ophthalmoplegia interna, the result of some central lesion.

His right cornea remained clear until May of this year, when interstitial infiltration first made its appearance in it.

Now, all inflammation has disappeared from the left, and the cornea has cleared except for a faint central nebula and a cresentic dense white opacity at the lower part, due to a formation of fibrous tissue on the posterior surface of Descemet's membrane.

The right cornea still presents the characteristic ground-glass haze but is beginning to clear at the margins. There are new blood-vessels developed in it. The most essential element in the treatment of interstitial keratitis, viz., the keeping of the pupil dilated with atropine to prevent the iris becoming bound down by adhesions, was not required in this case, the patient's pupils being already permanently dilated before the onset of inflammation.

Lymphatic Nævus of Conjunctiva.

A boy, aged 16 years, was shown with a congenital growth of the palpebral conjunctiva of the upper and lower lids on the left side. The growth displayed a number of small clear vesicles on the surface, and on being pricked a watery fluid escaped from it. Microscopical examination of sections showed it to consist of a large number of lymphatic channels. Treatment by electrolysis is being tried.

DISEASES OF THROAT, NOSE, AND EAR.

BY HERBERT TILLEY, M.D., B.S., F.R.C.S.

Friday, November 30, 1902.

Radical Operation for Chronic Suppuration of the Maxillary Antrum.

The symptoms of the disease are usually a chronic, purulent, fœtid nasal discharge, often associated with supraorbital headache, and a more or less marked degree of nasal obstruction. When both antra are affected these symptoms will of course be bilateral.

The purulent nasal discharge is a constant symptom. Headache or neuralgic pain most frequently affects the supraorbital region, and is often of greatest severity during the earlier hours of the day. The nasal obstruction is usually due to swelling of the nasal mucous membrane, or sometimes to the presence of polypi—each of these events being among the possible results of the chronic irritation produced by a long-continued purulent discharge.

The treatment resolves itself into one of two measures. In a case of only a few months' duration any carious upper bicuspid or molar tooth should be removed, the alveolus perforated, and an antrum drainage tube inserted. The cavity should then be irrigated two or three times daily, the frequency of the cleansing being diminished as the discharge becomes less in quantity. Boracic lotion (10 to 15 grains in an ounce) is a favourite wash. Carbolic lotion (1 in 60), permanganate of potash (5 grains to the ounce) and zinc sulphate (1 to 2 grains in an ounce) are also useful alternative lotions.

If after careful and regular irrigation for six to nine months pus still continues to be freely secreted and the patient is anxious for a complete cure, then the radical operation, as illustrated in the patient shown, can be carried out. The essentials of the operation are (1) a large opening in the canine fossa (2); careful curettage of the unhealthy mucous membrane lining the antrum; (3) disinfection of the cavity by strong antiseptics; (4) irrigation by warm boracic solution twice daily for the ensuing three to four weeks.

Cases so treated do exceedingly well, and the patient as a rule is able to resume his occupation within a week or so of the operation; the after-treatment can be easily carried out by the patient in his own home.

Acute Middle Ear Inflammation and Suppuration.

This patient, a female, aged 39 years, was sent for consultation. For three weeks she had suffered from discharge from the left ear, accompanied at times by acute pain. During the last few nights the pain had been so intense as to prevent sleep. In spite of frequent cleansing of the meatus with boracic lotion and the external application of hot fomentations, both the pain and the discharge continued.

Examination of the meatus showed that the upper and posterior wall was red, swollen, and bulging downwards and inwards towards the meatus, there was pain on deep pressure over the mastoid process, and the patient's temperature was 100·6° F. These symptoms indicated the possibility of there being pus in the mastoid, and suggested the advisability of exploring the antrum and mastoid cells by the radical operation. Stress was laid upon the diagnostic significance of swelling of the postero-superior wall of the deep portion of the meatus. If this sign is also combined with œdema of the soft tissues over the mastoid and tenderness to pressure, then it is certain that suppuration has occurred within the mastoid.

The temperature may or may not be raised in such a case; if the flow of pus from the ear is free, then the temperature may be but slightly disturbed, whilst with an obstructed flow there is a probability of more or less fever. In the earlier stages of marked inflammation great relief from pain may be secured by free leeching over the mastoid, this being followed by warm fomentations.

LETTER FROM THE EDITOR.

GENOA,
January 1, 1903.

DEAR DR. HAWTHORNE,—I promised to write you something for the Journal whilst on my tour, but am exceeding what I intended by beginning on board ship. We were delayed sailing for four days on account of fog in the Channel, but this disappointment had its compensating advantage in that it enabled me to receive a *proprio manu* letter from the Viceroy promising me every possible assistance in my enquiries and manifesting real interest in them. It may perhaps not be known to all readers of the POLYCLINIC that Lord Curzon, now the Viceroy, was an active member of the Prince of Wales's Committee on Leprosy twelve years ago. On that committee we often met. His Excellency now warns me that "the cured fish theory is, I believe, not generally entertained in India. Among the places where the disease prevails are Chota Nagpur (part of Bengal), the region lying below the Himalayas, and Nepaul. I have always heard that in all these places the only fish eaten is fresh fish from the streams." He also suggests that I should visit Burmah, where, he says, are the largest and best leper homes in India. They are under the management of Roman Catholics. You may remember that at the Polyclinic meeting several speakers advised Burmah. Really, however, there is no problem in Burmah. There is plenty of leprosy, undoubtedly; but that is not what I want to see. There is also by general admission universal eating of rotten fish. The two things go together, and are proportionate. I should learn nothing in Burmah that is not already well known. It is different in the other places named by the Viceroy. There the enquiry will be of the greatest interest. Are there many lepers? Which classes supply them? Is it the fact that the inhabitants neither salt fish themselves nor import it? I partly know already the answers to these questions, but it is quite possible that I may obtain on the spot information of a much more conclusive kind. My wish is to visit regions respecting which the facts are in dispute.

You know, I believe, that my first destination is Ceylon. Here, as in Burmah, there is no very definite problem. Fish-eating is universal, and leprosy is possibly universal, and neither of them is common. The percentage, less than 2 per 10,000, is low, much lower than in many parts of India, and infinitely lower than on the adjacent island of Minicoy, where it rises to 100 or 150 per 10,000. Now Ceylon, although it has fisheries, cannot catch all the fish that it requires, and it imports much from India, and even from Minicoy itself. It will be of interest to ascertain to what extent this importation goes on, where exactly the fish comes from, and to what sections of the Ceylon population it is sold. Also we want to know whether any fish at all is salted on the Ceylon shores, and how the process is carried out.

In 1862 the Royal College of Physicians published its well-known and invaluable report on leprosy. In that report there were three contributors from Ceylon under the initials respectively of "H. D.," "T. A. P.," and "D. G." In the main they agreed as to their facts. They all said that the disease was more frequent on the western coast than elsewhere, and that it was decidedly rare inland; they also said that more men than women suffered, one of them putting the disproportion as high as 1 to 30. It was agreed also that it occurred chiefly amongst the poorer classes (Cingalese and Moors); the richer ones and Europeans were very rarely affected. "H. D." insisted that the Cingalese as a race were not filthy in their habits, being accustomed to frequent ablutions, and added that their ordinary diet consisted of rice and vegetables eaten with "curries made of inferior kinds of fish." "T. A. P.," after stating, "It is more frequent in the maritime districts and on the fishing coasts, and is seldom seen in the inland and hilly districts," added, "An entirely fish or salt fish diet and want of cleanliness invariably occur amongst the natives, who are subject to the disease." "D. G." bore explicit testimony to the food origin. "In Ceylon this disease generally appears in towns, and chiefly in Colombo; not from any unfavourableness in climate nor from there being low, damp, or malarial, but, as I believe, principally from bad diet and filthy habits."

With such evidence you will perhaps think that a disciple of the fish hypothesis might well rest content. Although, however, there is nothing in Ceylon to confute or to explain away, there are still, as I have said, many points of detail which it will be of interest to investigate. I wish also to collect evidence as to certain other maladies, more especially as to that known as parangi or yaws. I shall also visit the Leper Home and General Hospital at Colombo, and shall see what I can at Kandy, after which you may expect another letter.

We are having a good voyage. I had the pleasure of meeting on the steamer at Southampton a gentleman who had been working at the Polyclinic, and who spoke most gratefully of what he had learned there.

Yours truly,

Jonathan Hutchinson.

THE POLYCLINIC

BEING THE

JOURNAL OF THE MEDICAL GRADUATES' COLLEGE, LONDON.

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GALENICAL PREPARATIONS.

THE term galenical, as applied to medicinal preparations, is not, perhaps, susceptible of very exact definition, though in commercial pharmacy it has, we understand, a well-understood practical meaning. Speaking generally, it may be said that galenical preparations are those obtained by the mere mixture of ingredients or by other mechanical processes, as compared with those which are produced by pharmaceutical operations involving definite chemical reactions. Thus, extracts, infusions, liniments, ointments, etc., are galenicals, while the salts of the metals are examples of chemical preparations. The chief interest of the term, however, is to be found in its historical associations. It refers, of course, to the practice and authority of Galen. And the term chemical is its historical as well as its commercial antithesis. Set in opposition, the two words recall the controversies of the fifteenth century, when the traditional practice of treating diseases by remedies of vegetable and animal origin was questioned by the followers of Basil Valentine and Paracelsus, who advocated the use of medicines derived from the mineral kingdom, or chemicals. Hence arose the two rival schools of

Galenists and *Chemists*, with their respective medicinal equipments of galenical and chemical remedies. The controversy, as is well known, was both noisy and long drawn out, and its din extended outside the limits of professional circles. A line in *All's Well that Ends Well* suggests, indeed, that the dispute was well known to the general public. The reference is in Act ii. Scene 3, and occurs during a discussion concerning the alleged fatal illness of the King of France, whom Lafeu describes as "relinquished of the artists," to which comes a reply from Parolles: "So I say; both of Galen and Paracelsus."

The phrase "chemist and druggist," still in common use, and having in addition a recognised legal significance, is another modern survival of the controversy which once raged so fiercely between the respective advocates of mineral and organic remedies. Chemicals were originally, and are even yet in the popular sense, of mineral origin. And in its etymological sense, a drug means a herb dried for use as a medicine. It is not uncommon, even at the present day, to read in an advertisement of "pure drugs and chemicals." The progress of chemistry, and the isolation from organic substances of alkaloids and other bodies having a definite chemical composition and capable of combination with acids, etc., to form salts, have broken down the line of distinction that formerly separated the two classes of remedies. Indeed, it has become common in recent years to apply the word "drug" to all materials used as medicinal agents. And obviously, quinine sulphate, for example, is as much a "chemical" substance as, say, magnesium sulphate. The advance of knowledge, and the toleration resulting from experience, have removed many of the artificial antagonisms of former disputes. But the echoes of certain of these can still be heard in the contrasted terms, galenical and chemical, and also in the phrases, drugs and chemicals, and chemist and druggist.

C. O. H.

IDIOSYNCRASY IN SYPHILIS.

The clue to the comprehension of the great variety in the phenomena which syphilis in all its stages presents, is to be found in the recognition of idiosyncrasy in its subjects. The virus is one and the same, and it never receives any modification so far as we know, but it exerts its influence on persons no two of whom are exactly alike in their proclivity to disease. In this feature it does not differ from its congeners, the more acute specific fevers. We may have malignant variola and we may have malignant syphilis. In many cases variola, scarlet fever and measles may each in turn be so mild and ill-marked that their diagnosis may even be called in question, and it is just the same with syphilis. The long duration of the stages of syphilis may be reasonably supposed to offer opportunities in corresponding measure for the display of what we may call this partnership of the specific poison with the patient's special proclivities.

OUR COMPOSITE COURSE OF LECTURES.

The most recent development of our Lecture Course has made an encouraging start. The list of entrants is already a considerable one, and we anticipate that it will be very sensibly increased as the new arrangements become more fully appreciated. It is due to those who are giving the lectures to acknowledge the heartiness with which they have acceded to the wishes of the Council. We are glad to see that the resources of the College in the shape of illustrations, diagrams, lantern slides, etc., are being freely utilised; in several instances they have, in addition, been reinforced from the lecturers' private collections. There can be no doubt of the value of such aids to teaching, and our College is able to offer great assistance in this respect. We again draw attention to the fact that the fee for the lecture course covers the whole of the year, and not merely the months for which detailed arrangements have so far been announced in our columns.

SELECTIONS FROM LECTURES DELIVERED IN THE COLLEGE.

MODIFICATIONS AND IMPROVEMENTS IN OPERATIONS ON THE BILIARY PASSAGES.[1]

BY A. W. MAYO ROBSON, F.R.C.S.

Consulting Surgeon to the General Infirmary at Leeds; Vice-President Royal College of Surgeons of England.

It is sometimes useful in surgical as in other matters to pause and look backward if the operation be done with a mind open to find fault with its own past measures. Such a process in my own case has led me to considerably modify, and I confidently believe, to improve my work in the branch of surgery about which I propose to occupy some of your time this evening.

After an experience of over a thousand operations in the upper abdomen, it is only natural that one should be more critical of one's own and of the work of other surgeons, and only satisfied with something more nearly approaching perfection, though so far as the saving of life was concerned in my earlier operations, I was able to state in the preface to the first edition of "Diseases of the Gall Bladder and Bile Ducts" that "I had never lost a single patient after any operation for gall stones in the absence of malignant disease, deep jaundice, or infective cholangitis, and that cholecystotomy for gall stones, even including the infective cholangitis and deeply jaundiced cases, only showed a mortality of 1·7 per cent."

I feel therefore, in advancing the proposition, that as soon as gall stones give serious trouble their removal by operation is the most rational method of treatment, it is one that can be safely supported, since it is only from the complications, which in many cases of cholelithiasis arise sooner or later, that any danger after operation need be apprehended.

I can see however, that had I been operating on my early cases at the present time, several of those that required a second operation would have been cured at first. Moreover, I believe that many of those in which the convalescence was prolonged would have been saved much time and inconvenience had the more thorough measures now adopted been followed out.

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[1] An address delivered before the London Polyclinic, December 11, 1902.

In my address this evening I will endeavour to point out in what manner my methods have changed, and also how my views on the subject of cholelithiasis and the operations for the disease have undergone some alteration.

When gall stones have once formed, no medicine, so far as I know, can dissolve them or produce permanent relief, though much may be done by medical and general treatment for the relief of the catarrh so regularly associated with cholelithiasis, and which may in fact bring on attacks not to be distinguished from true gall stone seizures.

Medical treatment must therefore be always fully tried before surgical measures are resorted to, but I think we are now all agreed that after a fair trial and the failure of medical means, surgical treatment should be adopted before serious complications supervene and before the patient is reduced by jaundice, suppuration or other untoward manifestation.

While cholecystotomy is generally recognised as the operation to be aimed at in the treatment of affections of the gall bladder and bile ducts, it is often impossible to say what operation will have to be done until the abdomen is opened and the exact state of affairs made out, for a contracted or dilated gall bladder, a suppurating or merely a distended viscus, concretions in the gall bladder or cystic or common ducts, the condition of the surrounding organs, the presence or absence of adhesions, and a host of other conditions will all influence the subsequent action of the surgeon, who always begins the operation as an exploratory one, the subsequent steps being altered according to the circumstances mentioned.

No surgeon should attempt the removal of gall stones unless he is prepared for any of the various operations on the biliary passages such as choledochotomy or cholecystectomy, as it is almost impossible to say beforehand what may be required until the ducts have been explored by the fingers and the condition of the affected viscera ascertained, and no operation should as a rule be concluded until it is clearly made out that the ducts, including the hepatic and common, are quite free from concretions, otherwise disappointment and dissatisfaction are certain to follow.

Since in the majority of cases then, an operation for gall stones is in the first place simply exploratory, the actual operation on the gall bladder or bile ducts being only determined by the condition found when the abdomen is opened, it may be well for us first to consider a simple abdominal section in the gall bladder region.

It may be convenient here before considering the operation itself, to accede to a request to give some of the details which I follow out in my operative work generally, especially as they apply to the operations I am about to describe.

First, as to the room in which the operation has to be performed.

Any ordinary well cleaned room having high windows so as to give good top light, answers almost as well as an operating theatre. There is of course an advantage in having electric light, but as I shall show, the operation I now perform on the bile passages is done close to the surface with few exceptions, not as formerly at a great depth, which necessitated a special electric lamp and always a very good vertical or high oblique light.

The advantage of operating in a hospital or surgical home is that the surgeon, or his house-surgeon, or assistant, is responsible not only for the operation but also for the after attendance, a matter almost as important as the operation itself. Moreover, the surgeon can do his work better and with greater confidence where he is accustomed to operate, and where he is confident that all his directions before, at the time, and subsequently, will be carried out to the letter.

In this matter of where the operation should be done, the surgeon who has to do the operation ought to make the selection, and the patient should abide by the decision with the full confidence that the operator will select the place where he can do his work to the best advantage of the patient.

I have seen several unsatisfactory cases where patients insisted on having operations performed in their own homes which were utterly unsuitable for such a purpose, that would in all probability have done well had they been in a surgical home, where the complications causing the trouble could have had immediate and skilful attention.

The surgeon ought also to be helped by his ordinary assistant in all serious operations such as I am about to describe, for a stranger, no matter how skilful, can never accommodate himself immediately to the needs of the operator, and it must be remembered that surgery is a fine art that can only be carried out with the greatest perfection under circumstances that are favourable to the artist.

The selection of the anæsthetist should also be with the operator, for with a competent anæsthetist the surgeon can devote the whole of his mind to his own part of the work in hand without having his attention diverted to make suggestions concerning the anæsthetic.

With regard to instruments, a gall stone scoop is the only special appliance I employ, and all the instruments are boiled for half an hour before being used.

My sutures and ligatures are of formalin catgut, prepared by the xylol process which I recently described in the *British Medical Journal*. No. "00" size is used for ligatures, and No. "0" size for sutures; they are strong and reliably aseptic.

Since the introduction of celluloid thread I have given up the use of silk for sutures as the former is much stronger, ties with a very firm knot, and is easily sterilised by boiling. As it is not absorbable I only employ it for the outer or serous suture in stitching the incision in the duct in choledochotomy, and for this purpose the "00" green chromic catgut prepared by the xylol process answers equally well, as it does not become absorbed before the second or third week. As showing the disadvantage of non-absorbable sutures, a case came under my notice where a silk suture used in a choledochotomy formed the nucleus of another gall stone, which fortunately passed without further operation.

As sponges I employ sterilised gauze swabs, but for keeping the viscera out of the way I use flat marine sponges, than which I find nothing to answer so well.

The area of operation is surrounded by dry sterilised towels; sterilised by dry superheated steam for half an hour.

My assistant, dressers and nurses all wear boiled rubber gloves, though personally I do not, unless I have just had a septic case to operate on, as I find they impair my sense of touch and cause some delay, but I take especial care to scrub and wash several times before operating, and near the operating table I keep a bowl of 1 in 2,000 biniodide of mercury solution in order to lave my hands from time to time during the course of the operation.

The instruments are used out of a 1 in 40 absolute phenol solution and the sponges out of 1 in 2,000 biniodide solution, but they are wrung quite dry before being used.

Doubtless an ordinary saline solution would answer equally well for instruments and sponges, but I think not for the hands.

The ligatures are used out of a 1 in 20 carbolic solution in spirit in which they are also stored.

The patient is prepared by having an aperient given so as to secure the bowels being moved the day before operation and an enema is given the evening before, if the operation is to take place early the next morning.

If there is any feebleness of pulse, 5 minims of liq. strychninæ are given subcutaneously the afternoon and evening of the day before operation and 10 minims as soon as the operation has begun. Should there be chronic jaundice or a tendency to hæmorrhage, chloride of calcium is given; for, although there is a greater tendency to bleeding in chronic jaundice from pancreatic disease than when jaundice is due to gall stone obstruction, I think there can be no doubt that in all cholæmic conditions the blood becomes so altered that the coagulability becomes seriously diminished, and that these factors demand serious attention before any operation is undertaken in cases of common duct cholelithiasis. After reading Professor Wright's researches on the coagulability of the blood, published in the *British Medical Journal* for December 18, 1891, my mind was prepared to grasp the possibility of turning the experience gained on dogs to practical uses in the human subject as I had lost two jaundiced patients, one in 1888 and one in 1890 from persistent oozing of blood subsequent to operation. I therefore at once began to employ it in these cases and with benefit, but it has been only within the last two years, since using chloride of calcium in apparently heroic doses, that I have been able to get at the real value of the drug, which is one I now always employ in jaundiced patients, both before operation in 30 grain doses by the mouth, and afterwards in 60 grain doses by the rectum thrice daily for two or three days, or longer if needful.

The skin of the patient over the operation area is prepared the day before by thoroughly washing with soft soap or some soap, not necessarily antiseptic, that will give a good lather; if needful shaving is then done and the whole area is gently rubbed with benzine. A dressing of lint wet with 1 in 40 carbolic solution in water is then applied and over this oil-skin or gutta-percha tissue. The dressing is changed early the next morning and the skin is thoroughly washed so as to clear away all loose and sodden epithelium, after which another 1 in 40 dressing is applied, to be removed on the operating table.

If the patient is feeble, a pint of normal saline solution with an ounce of brandy is given a short time before the operation.

As shock is intensified by exposure to cold, my patients are always enveloped in cotton wool, which is conveniently done by making a suit of gamgee tissue that can be roughly run together by the nurses in an hour or two, the day before operation.

When operating in a theatre I employ a heated table, but elsewhere india-rubber hot-water bottles around the patient take the place of the hot table.

It will be found that a firm sand-bag about 18 inches long by 6 inches wide and 3½ inches deep, covered with flannel and placed on the operating table at the liver level, will push the spine forward, and with it the liver and bile ducts, so that the common and hepatic ducts are brought several inches nearer to the surface, opening out the costal angle, and tending to make the intestines slip down from the liver. It acts like the Trendelenberg position in pelvic surgery.

Though this method, until I drew attention to it, does not seem to have been employed by others, I can, from ample experience, speak well of its great utility.

Operation.

Whereas I used formerly to make a vertical incision through the linea semilunaris, I now always make my incision over the middle of the right rectus in a line parallel with its fibres, which are then separated by the finger, the posterior sheath of the rectus and peritoneum being divided together. Where the gall bladder is distended and there is no jaundice, a small incision of two or three inches may only be required; but when it is necessary to explore either the hepatic, common, or deeper part of the cystic duct, instead of prolonging the incision downwards as was formerly done, I now carry it upwards in the interval between the ensiform cartilage and the right costal margin as high as possible, thus exposing the upper surface of the liver very freely. It will be found that by lifting the lower border of the liver in bulk (if needful first drawing the organ downwards from under cover of the ribs), the whole of the gall bladder and the cystic and common ducts are brought quite close to the surface, and as the gall bladder is usually strong enough, my assistant can take hold of it with his fingers or forceps, and by gentle traction can keep the parts well exposed at the same time that, by means of his left hand with a flat sponge under it, he retracts the left side of the wound and the viscera, which would otherwise fall over the common duct and impede the view.

It will now be observed that instead of the gall bladder and cystic duct taking a considerable angle with the common duct, an almost straight passage is found from the fundus of the gall bladder to the entrance of the bile duct into the duodenum, and, if adhesions have been thoroughly separated, the surgeon has immediately under his eye the whole length of the ducts with the head of the pancreas and the duodenum. So complete is the exposure that, if needful, the peritoneum can be incised over the free border of the lesser omentum, and the common duct separated from the hepatic artery and portal vein, but this is not necessary, except where a growth or glands have to be excised. The surgeon, whose hands are both free, can now deal with the gall bladder, cystic, common, or hepatic ducts quite easily, *e.g.*, with his left finger and thumb he can so manipulate the common or cystic duct as to render prominent any concretions, which can be directly cut down on, the edges of the opening in the duct being caught by pressure forceps.

The assistant can now take hold of the forceps with his left hand, as they with the sponge will form a sufficient retractor, since the duct is so near the surface.

When the duct is incised there is usually a free flow of bile, which it must be remembered is probably infective, but by inserting a sponge in the kidney pouch and rapidly mopping up the bile as it flows, by means of sterilised gauze pads, any soiling of the surrounding parts is avoided, and if thought necessary the bulk of the infected bile can be drawn off by the aspirator either from the gall bladder or from the common duct above the obstruction before the incision into the bile passage is made.

After removing all obvious concretions, the fingers are passed behind the duodenum and along the course of the hepatic ducts to feel if other gall-stones are hidden there, and when the common duct has been incised, a gall-stone scoop, the only special instrument I use, is passed into the primary division of the hepatic duct in the liver and down to the duodenal orifice of the common bile duct, and if thought necessary to insure the opening into the duodenum being patent, a long probe is passed into the bowel.

The incision into the bile duct, if one has to be made, is now closed by an ordinary curved round needle held in the fingers without any needle-holder, a continuous catgut suture being used for the margins of the duct proper and a continuous fine green catgut or spun celluloid thread being employed to close the peritoneal edges of the duct.

Where the gall bladder is contracted and the pancreas is indurated and swollen from chronic pancreatitis and likely to exert pressure for a time on the common duct, I insert a drainage tube directly into the duct, passing it upwards into the hepatic duct, and closing the opening around it by a purse-string suture, the tube being fixed into the opening by a catgut stitch which will hold for about a week; but where this is not done and the size of the gall bladder will permit it, I usually fix a drainage tube into the fundus of the gall bladder in the same way, as this drains away all infected bile and avoids pressure on the newly sutured opening in the duct.

So easy is it to remove impacted stones after this method of exposure that I now never spend a long time in manipulating stones impacted deeply even in the cystic duct, but at once incise the duct, remove the concretions and close the opening without damaging the duct by much pressure and prolonged manipulation.

Although there is seldom any fear of leakage or of infection, yet, where the ducts have been incised and extensive adhesions separated, there is usually some tendency to pouring out of fluid in the first few hours. I therefore generally insert a gauze drain through a split drainage tube, bringing it out by the side of the gall bladder drain. This is usually removed within twenty-four hours.

The wound is closed by continuous catgut sutures, first to peritoneum and deep rectus sheath and next to the anterior rectus sheath. Lastly, the skin margins are brought together by means of a few interrupted silkworm gut sutures inserted quite an inch from the line of incision and brought out an inch beyond the incision on the other side so as to allow the edges to fall together without tension, thus securing union by first intention.

To those having little experience in these operations, the modifications I have employed may seem trivial, but to those who have experienced the difficulties of the ordinary operation of removing gall stones from a contracted gall bladder or from the cystic or common ducts I feel sure the method I have described, which enables the whole of the bile passages to be dealt with as a straight tube close to the surface, will be sufficiently appreciated.

In these operations I employ forci-pressure for the immediate arrest of hæmorrhage, but I find it is more satisfactory also to ligature all the bleeding points, as in jaundiced cases the compressed and unligatured vessels are apt to bleed subsequently, and to lead to complications that are avoidable by careful hæmostasis. For the same reason I prefer to divide and ligature firm visceral, especially hepatic adhesions where that is practicable, rather than as formerly to separate them with the finger or tear them through.

If the liver be slightly torn in separating adhesions, the bleeding must be carefully arrested before the abdomen is closed. Sponge pressure is usually sufficient if the laceration be small, and this may be made more efficient by using at the same time a solution of adrenalin, but if the laceration be extensive, deep catgut sutures, applied by means of a round intestinal needle, will usually accomplish the desired effect, or, this failing, gauze pressure, the plug being left in until it becomes loose, will be certain to answer.

Nothing can be simpler than an ordinary cholecystotomy with a distended gall bladder, or even with a gall bladder of ordinary size, where a small incision suffices to expose the sac, which is emptied by the aspirator.

The collapsed sac is then brought through the wound and surrounded by sterilised gauze; it is then incised through the point where the needle was inserted, and through the wound in the fundus the gall stone scoop is inserted, and all gall stones are removed, a probe or the finger being employed to prove the ducts clear. A firm rubber tube, much firmer than the drainage tubes ordinarily sold, is then inserted from half an inch to one inch into the gall bladder, the edges of the incision being drawn firmly around it by a catgut purse-string suture, which is tied and cut short, the tube being fixed in position by a catgut suture, which transfixes the tube and the edges of the incision in the gall bladder.

The edges of the incision in the gall bladder are then fixed to the aponeurosis by three or four catgut stitches, but never to the skin unless a permanent biliary fistula is intended.

This tube is sufficiently long to pass into a bottle by the side of the patient; it drains all the bile away from the wound, and, by the time the catgut has dissolved, the wound will have healed by first intention except where the tube was, and that part heals by granulation within the next week or two if the ducts are clear.

The following is an example out of many of a simple cholecystotomy:—

Mrs. C———, aged 41, was admitted to the Infirmary, March, 1899, on account of a tumour of the gall bladder, noticed a month, but following on gall stone symptoms of several years' duration. On March 28 cholecystotomy was performed, and after several ounces of straw-coloured fluid mixed with pus had been withdrawn through an aspirator needle, the gall bladder was opened, and fourteen facetted gall stones were removed from it and the cystic duct, the largest being the size of a small walnut, the smallest the size of a pea. Exploration within the duct by means of a long probe, and outside the duct by the finger in the abdomen, failed to discover any further obstruction. A drainage tube was inserted into the gall bladder, and surrounded by a purse-string suture, the edges of the opening were then fixed by sutures to the aponeurosis. Bile appeared on the dressing on the following day, the drainage tube was removed on the sixth, and the sutures on the eighth day.

No bile was discharged after the ninth, and the wound was perfectly healed on the thirteenth day after operation. The patient returned to her home on the seventeenth day.

What has been called the "ideal" operation, in which the opening in the gall bladder is immediately closed and returned into the abdomen, was suggested by Langenbach; but as it does away with the beneficial effects of drainage, and is, moreover, attended with more risk than the ordinary operation I have described, I never employ it.

Another modification suggested by Bloch is that of performing cholecystotomy in two stages. The operation consists in incising the parietes until the peritoneum is reached, though not opened; the wound is then packed with gauze, and left for several days, when adhesions will have formed between the gall bladder and the parietal peritoneum. The gall bladder can then be safely opened. Or if the peritoneum be opened, the gall bladder is fixed, but not opened until adhesions have formed.

As the method is only available for the simplest cases, viz., where the gall bladder is distended, as it does away with all chance of exploring the ducts by the fingers within the abdomen, and as it is frequently followed by fistula, it needs only to be mentioned to be condemned as clumsy and uncertain, and no safer than the ordinary operation of cholecystotomy.

To this opinion there may be one exception: the operation *à deux temps* may present advantages when cholecystotomy is being undertaken in the presence of chronic jaundice associated with distended gall bladder and a hæmorrhagic tendency, as in such cases there is usually malignant disease either of the head of the pancreas or of the bile ducts, and when the peritoneum is exposed but not opened, pressure can be applied to arrest the oozing of blood, which cannot always be easily stopped by ligatures or forceps. Bloch, however, in his original papers, and again in the Revue de Chirurgie for 1895, does not recommend the operation for this reason, but on account of the fear of septic contamination of the peritoneum, which ample experience proves to be groundless.

A simple operation like the example just given is quite the exception, the gall bladder being usually contracted and surrounded by adhesions; moreover, in these cases the obstruction will usually be found in the cystic or common ducts. The advantage of the complete operation that I have described, in which the edge of the liver is lifted up and the bile passages brought well under view, will be experienced in this class of cases.

The next question will be, how is the contracted gall bladder to be dealt with? If it is too small to be brought to the parietes but sufficiently large to admit a drainage tube, the method of fixing the tube by purse-string suture just described will be quite safe, even if the opening in the gall bladder has to be left two or three inches from the surface, for the omentum can be made to lie against the tube, and by the time that the catgut is dissolved, a track of adhesions will have formed that will quite effectually prevent extravasation; but in order to make assurance doubly sure, I frequently insert a small split drainage tube with a little gauze in it, quite down to the gall bladder, and bring it out by the side of the first tube.

The following case illustrates the isolation of a drainage track by omentum and by gauze:—

Mrs. N., aged 57, seen with Dr. H. Well till eight months ago.

Never had spasms or jaundice previously. Six attacks in eight months. The pain, which is severe, begins at the epigastrium and passes to the right infrascapular region. Examination negative, but for tenderness over gall bladder.

Operation December 15, 1898. Very adherent dilated stomach with contracted gall bladder, containing thick mucus and gall stones. Separation of adhesions and cholecystotomy performed, but as the gall bladder could not be fixed to the parietes, a tube was fixed in it and isolated by idoform gauze.

Result.—Good recovery; tube removed on ninth day; well since operation.

If the gall bladder be so contracted as to be incapable of admitting a tube, it may either be closed by suture, the line of union being protected from hurtful leakage by a strip of gauze laid over it, and brought to the surface through a rubber tube; or the contracted and useless remains of the gall bladder may be removed by cholecystotomy.

Before I discovered the method for complete exposure of the whole biliary passages which I now employ, I frequently left the shrivelled and useless gall bladder, after clearing out the contents; with the result that relapse sometimes occurred, and cholecystectomy had subsequently to be faced, as in the following case:—

Mr. A., aged 56, seen with Dr. C. and Dr. A. of Nottingham, for loss of flesh, general ill-health and frequently recurring pains in the right hypochondrium; the illness being of several years' standing.

Operation September 4, 1898. Contracted gall bladder with adhesions to surrounding parts, the result of gall stone irritation; cholecystotomy performed, the gall bladder being isolated by a gauze drain. This was followed by relief for some months, when the painful attacks recurred accompanied by rigors and slight catarrhal jaundice. A further operation was advised, and on September 3, 1899, the shrivelled gall bladder containing muco-pus was removed, a small tube being passed into and fixed in the cystic duct. Bile flowed freely the next day. Ultimately the patient made a complete recovery, and when seen in 1902 he was in robust health and said he had had no further trouble.

This and other similar cases of contracted gall bladder led me to adopt the operation of cholecystectomy in certain cases, where to leave the gall bladder means leaving a useless and diseased appendage lined with mucous membrane that is certain to secrete mucus, which is apt to be retained, owing to the cystic duct contracting and becoming strictured, the result of long continued irritation and ulceration. This mucus, retained under tension, becomes infected, and a state of affairs much resembling chronic appendicitis is apt to continue, until either the gall bladder undergoes atrophy and absorption (a condition which may be termed cholecystitis obliterans and which I have seen on several occasions) or the patient is worn out by repeated pain and chronic septicæmia, unless a further operation is undertaken to remove the offending organ.

Cholecystectomy may be performed by three different methods, it being an important proviso that the common duct is cleared of concretions and freely patent.

(1) It may be completely taken away and the cystic duct used as a pedicle and ligatured. When the gall bladder is very much contracted this is both easy and effectual, as the attachments to the liver are readily dissected off without tearing the liver substance. A method of treating the pedicle, otherwise the cystic duct, which I have found effectual, but which to the best of my belief has not been adopted by others, is worth mentioning. The duct is seized with strong pressure forceps and crushed, thus making a groove in which the ligature, preferably of catgut, lies quite snugly. Any vessels that bleed are ligatured and as a matter of precaution, for the parts being dealt with are necessarily infected, a strip of iodoform gauze is left in contact with the end of the ligatured duct and brought to the surface through a split drainage tube.

The following cases afford examples :—

Mrs. S. G., aged 49, operated on in 1888 for gall stones (when sixty-six small ones were removed from a contracted and ulcerated gall bladder and cystic duct), was left with a mucous fistula which had to be kept open by a tube, as if it was allowed to heal, pain and fever resulted.

On May 14, 1890, a further operation was performed, when the gall bladder was found shrivelled and adherent and the cystic duct was strictured. The operation of cholecystectomy as just described was performed and a complete recovery resulted, the patient being well when heard of several years later.

Mrs. W., aged 57, seen with Dr. M., of Bolton, for repeated attacks of biliary colic associated with jaundice of three weeks' standing and rapid loss of flesh.

Operation June 8, 1901, when a gall stone was found in the common duct and one in a calcareous gall bladder, the shape and size of a hen's egg. Choledochotomy and cholecystectomy were performed and followed by a smooth recovery, the patient being quite well in September, 1901.

(2) The second method is applicable to cases where the gall bladder is larger but in which it is so seriously damaged as to be unsafe to leave; or in cases where, owing to impaction of a concretion in the cystic duct, ulceration has occurred and may be followed by stricture which would both prevent the gall bladder performing its functions as a reservoir for bile and might lead to an accumulation of mucus and the formation of a tumour.

In this case the attachment to the liver is considerable and if the gall bladder be fully detached, laceration of the liver is apt to occur and troublesome bleeding, which can be saved by making a longitudinal incision through the fibrous coat on each side of the liver attachment when the bulk of the gall bladder and all the mucous membrane can be removed, necessitating only ligature of branches of the cystic artery in the small portion of the fibrous coat left attached to the liver.

The cystic duct may then be ligatured as described in the last operation, or plugged with a gauze drain, or drained by the insertion of a tube which is surrounded by a purse-string suture so as to prevent leakage of bile.

The following cases afford examples :—

Mr. M., aged 46, seen with Dr. R. of New York, and Dr. G. of Nice, for frequent seizures of intense pain resembling biliary colic, with irregular fever and great loss of flesh and strength. At the operation on May 2, 1895, I found an inflamed and contracted gall bladder with cholangitis and extensive adhesions, doubtless due to gall stones that had passed. After opening the gall bladder and clearing away muco-pus, the organ was excised in the way just described and the duct was plugged with gauze brought to the surface through a tube. Recovery was uninterrupted, and he was able to sail at the month end. Nine months later he was in perfect health.

Mr. M. A., aged 50, seen with Dr. A. of York, January 10, 1900, for acute local peritonitis of a week's duration starting in the region of the gall bladder and ushered in by a rigor followed by fever and intense pain and prostration, the first symptom of pain in the gall bladder region having only been noticed a month previously.

Operation was performed the same day, when gangrene of the fundus of the gall bladder was discovered with intense local peritonitis limited by acutely inflamed and darkened omentum, the patient being a very fat subject. Cholecystectomy performed ; the portion of gall bladder attached to the liver was left, as it was not gangrenous ; a tube was inserted into the cystic duct. He made an uninterrupted recovery, and is now in excellent health.

Dr. W. Mayo, of Rochester, U.S.A., suggested another method of partial cholecystectomy which he has found of service. He lays open the gall bladder and shells out the mucous membrane, if possible in one piece, plugging the cavity remaining with gauze. In some cases this is easy, but in others where there has been much inflammatory disturbance I have found it impracticable.

After cholecystectomy, in the case of a dilated cystic duct, where the ultimate patency of the common duct is questionable, the open end of the duct may be connected to the bowel by choledochenterostomy, as in the following case :—

Mr. P., aged 55, seen at the Leeds infirmary, July 24, 1895. Operation undertaken for closing a mucous fistula, when the gall bladder was found to be forming a tumour with walls one half to three-quarters of an inch thick.

Cholecystectomy was performed, and the open end of the cystic duct connected to the small bowel by means of a Murphy's button. A smooth recovery followed, and when heard of in 1896 he was completely cured and in good health.

If, as frequently happens, gall stones are so firmly fixed in the cystic duct that they cannot be pressed backward into the gall bladder, it is better not to use force, but to incise the duct over the stone, and after clearing the duct to close it by a double row of sutures to mucous membrane and serous coat respectively, as in the following case :—

Mrs. G., aged 47, seen with Dr. L. of Farsley. Repeated gall stone seizures for two years ; no jaundice ; no fever ; distended gall bladder, which was tender.

Operation March 23, 1899. Empyema of gall bladder, with many small stones in gall bladder ; one large impacted stone which could not be dislodged from within was removed from the cystic duct by choledochotomy ; drainage of gall bladder and gauze drain down to incision in duct. Good recovery. Well 1901.

If the concretions are in the common duct either fixed or floating it is just as easy, with the duct well under the eye and near the surface, to incise it and remove the stones, as it is to open the gall bladder. All such instruments as handled needles and Halsted's hammer are quite unnecessary, for the incision in the duct can as readily be closed by means of a curved round needle (sewing-needle pattern) in the fingers as by any more complicated apparatus. But before closing the duct, it is of the utmost importance to ascertain that there are no stones left either in the ampulla of Vater or in the hepatic duct, and although the fingers manipulating the outside of the ducts can give information as to any large stones, it would be easy to overlook small ones unless the scoop is passed freely upwards into the hepatic ducts and downwards behind the duodenum ; or if necessary, the opening in the duct can be made sufficiently large to admit the finger for exploration.

I usually pass a large probe down into the duodenum through the papilla to be sure that the passage is quite free. In one case, not being able to pass the probe beyond the papilla, I opened the duodenum and found a stricture of the common duct close to its termination, which I divided after freely laying the papilla open over a director.

The following are examples of choledochotomy :—

A man, aged 50, was seen by me with Dr. W. of Ovenden. There had been gall stone colic for two years and three months, with loss of flesh and strength. Jaundice and infective cholangitis were present. A stone was floating in the common duct, and there was a fistula between the gall bladder and the colon. On January 28, 1900, a gall stone was removed from the common duct by choledochotomy; the fistula between the gall bladder and the colon was closed by sutures, and a good recovery followed. The patient was quite well in September, 1901.

A man, aged 53, who was seen by me at the General Infirmary, had had colic for twelve years and jaundice for two years, the jaundice having been very deep for some time. On October 10, 1901, choledochotomy was performed in the manner previously described, and a stone was removed from the common duct. The patient was well in December, 1901.

A man, aged 58, was seen by me with Dr. R. of Preston. He had had very deep jaundice for three years. Biliary cirrhosis and ascites as well as jaundice were present, and there was a stone in the common duct. On October 21, 1901, choledochotomy was performed, and the omentum was fixed to the anterior abdominal wall in order to cure the ascites. Anterior drainage was employed. In December, 1901, I had a letter to say that he was regaining strength, and feeling well, and I am told that he has completely regained his health.

In quite a number of cases, after the common duct has been cleared, I have found stones in the hepatic ducts which I have removed by the scoop.

The following are examples:—

A policeman, aged 48, a stout, unhealthy subject, with a history of former intemperance, had suffered from gall stones for twenty years, and from jaundice with infective cholangitis since May, 1901. On December 7, 1901, choledochotomy was performed in the infirmary, when 126 gall stones were removed from the gall bladder, and eighty-eight from the common and hepatic ducts. Recovery was retarded by bronchitis, but the patient was discharged in five weeks and is now well.

On July 17, 1902, I operated on a lady, aged 70, and removed a considerable number of gall stones from both arms of the hepatic duct, after clearing the common duct of concretions through a choledochotomy opening. The patient is, I am informed, now quite well.

In some cases the common bile duct is found dilated to the size of the small intestine, and if the gall bladder and cystic duct are small and so contracted as to be useless for drainage, a firm rubber tube is inserted into the incision in the duct, and pushed a little way up into the hepatic duct, the tube being surrounded by a purse-string suture, and fixed in position by one or two catgut stitches, as in the following case:—

I saw the patient, a man, aged 51, with Dr. H. of Upwell. There had been only slight colic, but for a year deep jaundice with great wasting and infective cholangitis. Choledochotomy was performed on September 29, 1901, five stones being removed from the common duct. As there was chronic pancreatitis, the dilated common duct was drained by means of a rubber tube fixed in by suture and surrounded by a purse-string suture. A lumbar drain was also inserted, but as events proved, this was unnecessary. The patient was very well, and he had gained 1st. 3lbs. in weight in November, 1901. He remained well when heard of in June, 1902.

If a stone is impacted in the duodenal end of the common duct, it may sometimes be more easily reached through a vertical incision in the second part of the duodenum, when the concretions can be directly cut down on through the posterior wall of the duodenum, or the papilla can be laid open over a director; it is then easy to pass the gall stone scoop up the common duct in order to be certain that it is free from concretions. All that is now necessary is to close the anterior duodenal wound by a continuous catgut suture for the mucous membrane, and a continuous silk or celluloid thread for the serous margins.

The following cases are given as examples :—

The patient, a man aged 38, was seen by me at the General Infirmary. There had been colic and jaundice for six months with loss of weight and strength. Deep jaundice was present. There were gall stones in the common duct. Duodeno-choledochotomy performed on January 31, 1901, resulted in a good recovery, and the patient was well some months later.

A woman, aged 49, was seen by me at the Infirmary. For six years colic had persisted with varying jaundice. On March 22, 1901, duodeno-choledochotomy was performed and eight large, together with numerous small gall stones were removed from the common duct, a good recovery ensuing, the patient being well some months later.

With the better exposure of the common duct secured by the new operation, duodeno-choledochotomy will be seldom called for, as the gall stone scoop can so freely be used through the incised duct.

Cholecystenterostomy has been advocated by some surgeons for obstruction in the common duct by gall stones, the gall bladder being connected to the duodenum or colon. In my earlier practice I performed a number of these operations, but since I discovered the easy and effectual method of exposing the whole length of the bile ducts I have practically discarded this operation, for it leaves the cause untouched, and should the artificial opening close, the symptoms inevitably return, as in the case of chronic pancreatitis on which I operated in November, 1899, where the communication was effected by a Murphy button, and though the patient was relieved for a time, the symptoms returned owing to the closure of the fistula.

The junction of the viscera may be effected either by means of a small bone bobbin or by a Murphy button.

As to the point of junction, the cases in which I have joined the gall bladder to the colon have done quite as well as those in which a duodenal junction was effected, and as the operation is very much easier I should certainly advocate and practise it in future, if called on to perform cholecysterostomy simply as a means of giving relief.

The following is a description of a case of gall bladder colic operation :—

On January 9, 1888, a married woman, aged 42, was admitted to the infirmary suffering from acute local peritonitis, with a tumour in the region of the gall bladder. On January 14, laparotomy was performed through the upper part of the right linea semilunaris, and 8 oz. of fœtid pus removed from the gall bladder. Exploration of the ducts by the finger and a probe failed to discover any gall stones. The gall bladder was stitched to the abdominal wound and drained, and the patient made a good recovery, but with a biliary fistula.

Although she had retained good health during the fifteen months when the fistula was open and discharging the whole of the bile, her condition was a very miserable one, since no apparatus could be made to catch the overflowing fluid when she was walking about, and her dressings and clothes became saturated.

On March 2, 1889, cholecystenterostomy was performed by reopening the abdomen through the old cicatrix in the right linea semilunaris. The viscera in the neighbourhood were found to be so matted together that it seemed to be impossible to fix the gall bladder to the duodenum, and as the hepatic flexure of the colon was conveniently near, the gall-bladder was fixed to it by a double row of sutures around a decalcified bone bobbin, a free communication being made between the two viscera. After a tardy convalescence she completely recovered and was well in every respect ten years later.

The only case in which I should now think it justifiable to perform cholecystenterostomy are those in which the obstruction is a permanent one, for instance in cancer of the head of the pancreas and in growth or stricture of the common duct.

Where gall stones are associated with cancer of the gall bladder, liver, or pylorus, a much more extensive operation may have to be done, as in the following cases :—

A man, aged 46. Seven years gall stone attacks. Infective cholangitis. Loss of 4 stones in weight. Jaundice.

Operation June 26, 1899. Tumour of liver adjoining gall bladder excised by wedge-shaped incision. Fundus of gall bladder also removed. Large number of gall stones removed and cholecystenterostomy performed. Complete and perfect recovery. Patient in excellent health at present time, over three years after operation. Microscope showed disease removed to be cancer.

A woman, aged 63. History of pain and jaundice. Great loss of flesh and strength. Tumour in gall bladder region.

Operation August 10, 1900. Mass of growth discovered in liver, gall bladder and pylorus. Cholecystectomy, pylorectomy, and partial hepatectomy performed. Good recovery. Patient well and in good health now. Microscopic examination showed the disease to be cancer.

But these are exceptional cases, as there were no secondary manifestations of disease in the liver or elsewhere. Had there been such, I should have simply concluded the operation as an exploratory one.

In detaching adhesions, it may be found that there is a fistula between the gall bladder and stomach, pylorus or bowel, and a careful search must always be made for this, lest an opening into one of the hollow viscera be left, which would probably mean extravasation and death.

The following are examples of inter-visceral fistula :—

Mrs. H., aged 60, seen with Dr. C. of Doncaster. Attacks of gall stone pain for fifteen months, lately very frequent and followed by slight jaundice. Constant dyspepsia with frequent vomiting and steady loss of flesh.

Operation July 7, 1898. The stomach was found firmly adherent to the gall bladder, and on separating the adhesions a fistula between the gall bladder and stomach was found. The edges of the stomach fistula were pared, and the opening was closed by two rows of sutures. Through the fistula in the gall bladder the gall stones were removed and drainage carried out. The patient made an excellent recovery and is now in good health.

Mr. G., aged 50, seen with Dr. W. No history of spasms; first attack of gall stone colic in October, 1897, followed by jaundice; severe seizures in December, 1897, with jaundice lasting two months, and associated with ague-like seizures; slight attacks for a year and then one very severe in December, 1898, and again in January, 1899; during the whole period, the icterus deepened after each attack, and occasionally rigors occurred; lost over 2½ stones in weight; patient jaundiced, but not deeply; liver not enlarged; no tumour of gall bladder; tenderness above and to right of umbilicus; well marked dilatation of stomach.

Operation January 28, 1900. Fistula between shrunken gall bladder and colon discovered, cystic duct shrunken; common duct dilated to size of small intestine and containing large floating gall stone; calculus crushed and fragments manipulated back through cystic duct; tube introduced into common duct through cystic duct; fistulous opening into colon closed. Uninterrupted recovery.

If with the gall stones, pyloric stenosis be found, then pyloroplasty or gastro-enterostomy will have to be performed as in the following case.

Miss T., aged 45, seen with Dr. W. of Harrogate. History of gall stone attacks with slight jaundice for several years. History of gastric ulceration with stomach symptoms for two years. Great loss of weight and strength. Dilatation of stomach and tenderness over gall bladder region, but no tumour.

Operation August 5, 1901. Pyloric stenosis with dilatation of stomach and gall stones in gall bladder and common duct found. Twenty gall stones removed from gall bladder by cholecystotomy and two removed from common duct by choledochotomy. Pylorus treated by pyloroplasty. Smooth and rapid recovery. July, 1902, patient very well and had gained over two stones in weight.

In common duct cholelithiasis, especially where there is a small floating gall stone, it is common to find the head of the pancreas enlarged and hard, the result of chronic pancreatitis, this will give rise to the suspicion of cancer of the head of the pancreas and may lead to an unfavourable prognosis being given, but the following out of many cases that I have had shows that it is well to reserve our opinion in such cases and to give the patient the hope of cure.

On October 20, 1899, I was asked by Dr. S. of Sunderland, to see a lady, aged 51, who had been suffering for three years from attacks resembling those of gall stones, each attack being followed by jaundice. During the past fourteen weeks the seizures had been more frequent and severe, and jaundice had never quite cleared away before another attack came. She had lost flesh and strength considerably and had vomited from time to time between the attacks. Her digestion was much impaired and there was a want of appetite. She had had no rigors, and had only slight fever at the time of each seizure. The urine contained abundant lithates and a slight trace of albumen, but no sugar. On examination the abdomen showed no manifest enlargement of the liver or gall bladder, but some tenderness over the gall bladder and at the epigastrium where there was an indefinite sense of fulness. An operation was performed on the 23rd, when after detaching numerous adhesions fifteen gall stones were removed from the cystic and common ducts, but as a large nodular mass was occupying the head of the pancreas and partly obstructing the common duct it was deemed advisable to perform cholecystenterostomy so as to make a permanent opening between the fundus of the gall bladder and the douodenum. The tumour gave the impression both to myself and to Dr. S., that it was malignant. Recovery was, however, uninterrupted, the button was passed on the tenth day, the wound healed by first intention and the patient immediately began to put on flesh. She returned home and has since been perfectly well in every respect. It is now over three years since the operation and her health I am informed is perfect.

I have entirely given up cholelithotrity as a set operation, as although in my earlier experience it answered well in some cases, in several the fragments did not pass and gave further trouble or led to relapse. Moreover, the very complete exposure which the operation I have described gives, renders all uncertain methods, such as crushing, quite unnecessary.

It would be easy from my own experience to add to the number of examples of each operation that I have described. Some hundreds of cases have been reported or referred to in the second edition of "Diseases of the Gall Bladder and Bile Ducts."

It only remains for me now to refer to the after-treatment, which I previously said that I consider almost as important as the operation itself.

Expedition in operating is an important factor in lessening shock, especially in abdominal surgery, for it stands to reason that prolonged manipulation and exposure of the viscera, in patients so ill as the class of cases we are now considering must generally be, will be badly borne, for it is not only the work of the surgeon but the deep anæsthesia that adds to the shock, since for these operations to be expeditiously performed the muscles must be well relaxed. Choledochotomy should occupy from half an hour to an hour, and only in case of unusual complications a little longer.

After operation, a pint of saline fluid with one ounce of brandy is given by enema, and 5 minims of liq. strychninæ are given subcutaneously, if the pulse is rapid or feeble, this being repeated if called for. Subcutaneous injections of saline fluid or intravenous infusion are only rarely required.

Beyond teaspoonfuls of hot water or hot tea from time to time, all feeding is by the rectum for the first twenty-four hours, though if there is no vomiting the teaspoonful of water is increased to a tablespoonful or even two, every hour. After forty-eight hours, if there is no vomiting, milk and soda and barley water can be freely given. A little plasmon dissolved in the tea or beef tea or barley water considerably adds to the nutritive value of the fluid. Light custard pudding is usually given on the fourth day, fish on the fifth, and chicken on the sixth, after which the diet becomes almost normal.

The bowels are not disturbed before the fifth or sixth day, and then only by enema, unless there is vomiting or distension, and in case of either of these complications, a grain of calomel is administered and followed by two ounces of Apenta water every two hours until it acts or until flatus passes freely, this being at times helped by the rectal tube or by a turpentine enema.

Morphine is avoided after all my abdominal operations, as it tends to paralyse the intestines and leads to an accumulation of flatus. I believe that abstention from the use of morphine is a great feature in the success of abdominal surgery, just as I feel sure that in the past it has killed many patients who would otherwise have done well.

If a sedative is needed, 10 grains of aspirin will be found useful, and this can be repeated in two hours if required. In case of vomiting being troublesome or epigastric distension persisting, gastric lavage will be found useful, and when the stomach is emptied, a dose of Apenta water may be left in it to ncite peristalsis. Under these circumstances no food or fluid is allowed by the mouth, but plenty of fluid in the shape of normal saline is given by rectum.

As a rule, recovery is uneventful, and for the most part after-treatment is negative. The stitches are removed on the eighth day, and the tube usually comes away about the same time; the wound generally will have healed by first intention and the spot where the tube was heals by granulation.

The dressings are of the simplest, sterilised gauze and sterilised wool being employed as a rule, double cyanide gauze just boiled being sometimes used next to the wound.

In conclusion, gentlemen, I must thank you for giving me such a patient hearing, for though the subject is an interesting one, I fear I may have been somewhat tedious in entering into so much detail.

The chief lessons I have to teach are that we should operate earlier, before serious complications have ensued, and that when we do operate we should be thorough, expeditious, and careful.

ON INJURIES TO THE EYE.

BY H. E. JULER, F.R.C.S.

[*Abstract.*]

Injuries to the eye are either contusions or wounds. A blow which produces an ordinary "black eye" either may or may not injure the eyeball. As a consequence of this, or some similar form of violence, various kinds of damage may result. Some of these produce immediate impairment of vision, whilst in other instances there is, perhaps, little interference with sight at the time, though a serious degree of blindness may be the ultimate effect. A common result of contusion of the eyeball is hæmorrhage into the anterior chamber. This, in itself, is hardly a serious condition, as the blood will usually become absorbed in the course of a few days. But if there is hæmorrhage into the vitreous—shown by the absence of the red reflex when a beam of light is thrown into the eye—the prospect is an anxious one, and the prognosis must be guarded. Such hæmorrhage may occur apart from the presence of blood in the anterior chamber. It may be the consequence, for example, of an injury which ruptures the choroid. Another consequence of contusion of the eyeball is concussion choroiditis. Inflammatory changes are produced in the choroid, and these, as their ultimate result, lead to pigmentary deposit in the macular region, with the possibility of serious impairment of central vision. In other cases, again, there appear to be produced a temporary disturbance and loss of function of the retina—a *commotio retinæ*—as the patient, though partly blind for a time, and perhaps for a long time, ultimately regains perfect vision. Another, and a relatively common result of violence, and sometimes of comparatively slight violence, is detachment of the retina. This may either follow the injury immediately, or may be postponed, and in the latter case it is at times difficult to get a history of violence, more particularly if this has been slight in degree. An unusual condition which sometimes develops as a late result of injury is the appearance of "holes" in the retina, these looking like punctures in the macula. Hæmorrhage into the retina, detachment of the choroid, and rupture of the sclerotic, are amongst the other serious effects which violence may produce in the tissues of the eyeball. The last-mentioned always means great violence and is almost invariably accompanied by considerable loss of vitreous—indicated by *minus* tension. The damage, indeed, is so great that the only safe course is to remove the eyeball. Another group of cases are those in which the iris is damaged. There may be a mere paralysis causing dilatation of the pupil—a condition which some-

times persists for a long period, and in the absence of a history of violence may lead to a suspicion of organic nervous disease. Another functional result is paralysis of the ciliary muscle and consequent loss of the power of accommodation. In other instances there is a more or less extensive separation of the iris at its periphery. This at first may be concealed by the hæmorrhage into the anterior chamber which accompanies such a casualty, but, as the blood is absorbed, the gap at the periphery of the iris comes into view. The gap rarely or never becomes closed, though, unless the rent is a considerable one, it hardly interferes with the acuity of vision. The proper treatment is the instillation of atropine, which, by dilating the pupil, carries the iris out towards the periphery, and thus gives a chance for union to occur, or, in any event, diminishes the risk of further separation. In another group of cases there is dislocation, partial or complete, of the lens, or rupture of the lens capsule. The latter accident interferes with the nutrition of the lens substance, and is followed by the development of cataract. Apart from damage to the structure of the globe, a blow on the eyeball may damage the trunk of the optic nerve. The nerve may be ruptured, or hæmorrhage may occur into its sheath. In such a case the patient will be blind, though, provided no intra-ocular damage has been done, the ophthalmoscopic appearances may be normal. Later, atrophy of the nerve takes place, and the optic disc acquires the characters which mark this condition. Lastly, in connection with contusions may be mentioned the possibility of fractures of the orbital walls. These can only be produced by great violence; they are usually accompanied by considerable damage, and by injury to intracranial structures.

Wounds of the eyeball are either penetrating or non-penetrating, and the latter either may or may not be associated with the presence of a foreign body in the eye. Non-penetrating wounds may be limited to the conjunctiva or cornea, or they may reach the sclera. A small wound or abrasion of the cornea may be difficult to detect, but it should always be suspected when, after some slight accident to the eye, there is marked photophobia, and it may readily be brought into view by dropping into the eye a little of a 2 per cent. solution of fluorescin, which gives to the injured part a greenish yellow stain, but leaves uncoloured the normal corneal epithelium. The great risk of the non-penetrating wounds is the liability to septic infection. The warm, moist, conjunctival sac is a situation very favourable to bacterial growth, and when surface infection once occurs the elaborate lymph system of the eyeball favours absorption. Thus the septic processes readily extend to the deeper parts of the globe. The slightest injury may in this way be the prelude to a process of suppuration which may cause the complete destruction of the eyeball. Hence all injuries, however apparently trivial in themselves, demand careful treatment with a view to render them aseptic and to promote their rapid healing.

Penetrating wounds, without the retention of a foreign body in the eye, are usually caused by some sharp-pointed instrument such as a pair of scissors, a knife, bradawl, &c. Such a wound may be limited to the cornea, and may thus be overlooked unless the fluorescin test is employed. It always, however, permits the escape of the aqueous. As a consequence, the tension of the globe is diminished, and the anterior chamber is rendered shallow by the approach of the iris to the cornea. Indeed, it is a common occurrence for the iris to prolapse into the wound—a condition which at once indicates the existence of a penetrating wound of the cornea. The treatment in these circumstances is as follows :—Wash out the palpebral sac thoroughly with a solution of perchloride of mercury (1 in 5,000) ; if the iris is protruding try, after cleansing, to replace it ; this failing, the protruding portion must be drawn forwards with forceps and cut off with a pair of scissors—the resulting coloboma will be a less serious prejudice to vision than the adhesions and other consequences which will follow if the iris is left in the wound. After restoration or removal of the iris atropine must be instilled and the eye covered with a pad and bandage.

Penetrating wounds of the sclera vary in importance according to (1) their size, and (2) their situation. A large wound, wherever situated, will almost certainly be attended by free escape of the vitreous. The eyeball therefore becomes flaccid and collapsed, useless as an organ of vision, and a source of danger to the other eye. Hence the safe course is to remove it. A small wound is not necessarily attended by these consequences, and in such a case every effort should be made to save the eye. The chances of doing this depend largely on the situation of the wound. If it is in the anterior part of the sclera, that is, near to the circumference of the cornea, it will almost certainly involve the ciliary body. This will mean hæmorrhage into the vitreous. Further, if septic matter has been introduced with the instrument that has caused the wound, absorption in the region of the ciliary body occurs with great rapidity and ease, and so there is great danger, not only of destruction of the injured eye, but also of the development of sympathetic ophthalmitis in the other eye. Thus wounds—even small wounds—which penetrate the anterior or ciliary region of the sclera—the danger zone, as it is called—are attended with great risk, and demand always a guarded prognosis. Wounds outside the ciliary region are less dangerous, but with any one of these, even the smallest, there is the risk of septic infection.

Penetrating wounds complicated by the presence of a foreign body in the eye are most commonly caused by chips of metal. Thus they occur in various classes of artisans. Another cause is shot discharged from a gun, or a piece of metal driven into the eye by the explosion of a gun-cap. The first point to decide is whether there actually is a foreign body in the globe and if so, what is its exact situation. Hence the anterior chamber, the iris, and the lens must each be carefully examined under a beam of light concentrated on the eye by means of a lens (focal illumination). In the anterior chamber the foreign body may possibly be concealed by effused blood, and to detect one which has become lodged in the lens it may be necessary to first dilate the pupil. If the foreign body has penetrated as far as the vitreous it can scarcely be detected except by the ophthalmoscope, and it may be altogether concealed by hæmorrhage. Sometimes a foreign body may be seen lying in actual contact with the retina at the posterior pole of the eyeball. In the event of failure to detect the presence and position of a foreign body by direct inspection—when the history renders it possible that one is present—Mackenzie Davidson's instrument for localising the position of such bodies by means of stereoscopic skiagrams should be employed. Another mechanical aid, at least in the case of magnetic objects, is Haab's magnet, which will cause pain in an eyeball in which any such object is lodged. The magnet may also be used for the extraction of objects of this nature. The usual result of the entrance of a foreign body into the eyeball is violent inflammation (more especially if septic material is carried into the wound) with the risk of sympathetic ophthalmitis. In other instances, a small, clean piece of metal may enter the eye and remain with, as a consequence, only a limited amount of surface congestion in the circum-corneal zone—an appearance always suggestive in connection with the possibility of a foreign body being present in the eye. Very exceptionally, a fragment of clean metal will remain for years either lodged in the lens or lying against the retina without producing any inflammatory reaction and unattended by any serious limitation of vision. The chances are, however, enormously in favour, in any case of a foreign body in the eye, of loss of the eye by inflammatory changes with a grave risk of extension to the other eye. Hence, when once diagnosed, the invariable rule is to endeavour to extract the foreign body. The method to be adopted will vary with the position and nature of the object. A fragment of steel may be removed by Haab's magnet, either through the wound of entrance or, if this has closed, through an incision made near to where the steel is lodged. In the case of a non-magnetic body, similarly, it must be accurately localised and then an endeavour to remove it must be made. Failure raises the difficult question of removal or evisceration of the eyeball. Rarely, as already stated, a foreign body remains quiescent and does not produce trouble. But in the great majority of cases there is grave danger both to the injured and to the sound eye, and delay in removal of the one means a risk that when this step is finally taken it will be found that it has been taken too late to save the non-wounded eye. No absolute rule can be stated. Each case must be judged on its merits. But it is better to be on the safe side and to remove an eye that is sightless or painful and is a danger to its fellow, rather than incur a risk of the destruction of both eyes with its terrible consequence of total blindness.

ON ENGLISH CRETINISM.

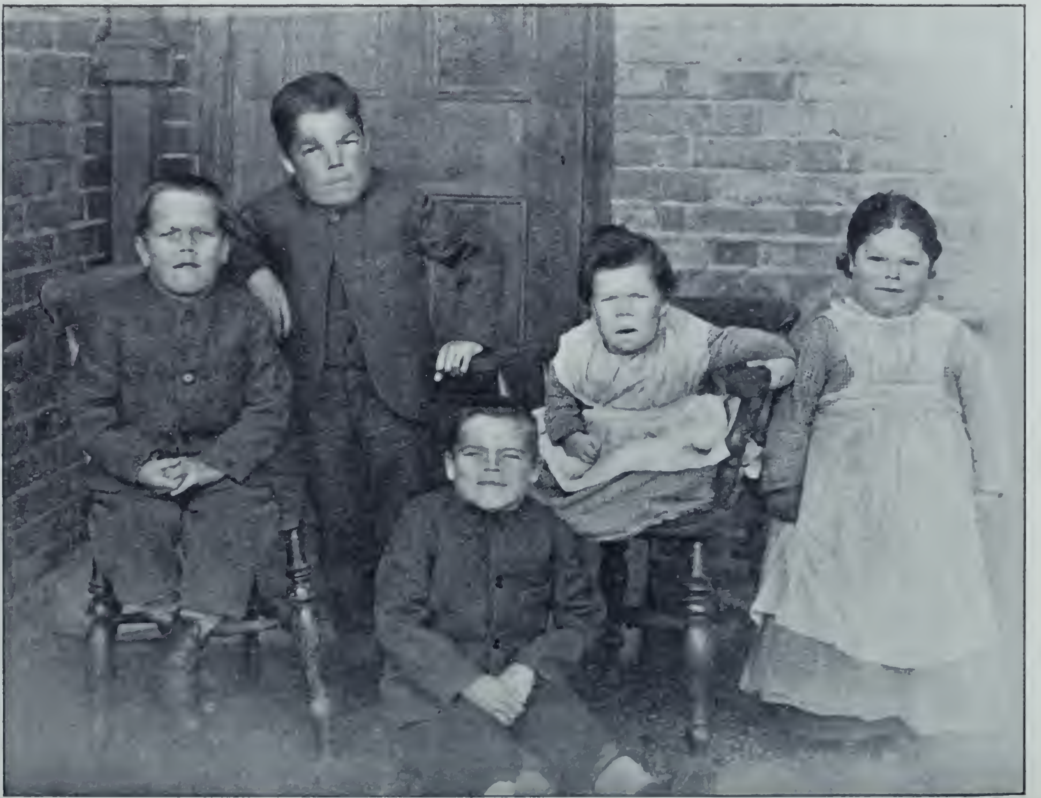
BY JONATHAN HUTCHINSON, F.R.S., LL.D.

Gentlemen,—At one of our recent consultions Dr. Ridley, of Croydon, brought before us a very interesting example of myxœdema in a girl. You will remember her short stature, her juvenile aspect, and the patchy colouration of her cheeks. I will read you, as a reminder, Dr. Ridley's notes and afterwards make some remarks upon the disease.

Dr. Ridley's Notes.

She is 21 years of age. Her brothers and sisters are all healthy, one being younger than the patient. Was first noticed to be different from other children at 2 years. Medical advice sought but told nothing could be done as she was weak-minded. She came under my care in January of this year. The hair was thin and scanty, skin dry and rough, tongue large and protruding, expression dull and stupid-looking, great difficulty in walking about owing to her enormous size. Height under four feet. She was put on 1½ grains of thyroid tabloids, at first every other day, after a few weeks daily, and has continued them ever since. A rapid improvement soon took place; the hair began to grow, her weight was reduced to about half, and she has gained three inches in height, being now forty-nine inches. She is bright and happy, can talk, and is now being educated; knows her letters and can spell a few words.

You may remember that on examining the patient's neck I was unable to detect any evidence of the existence of the thyroid. So far as my fingers could tell it might be an instance of athyroidea. On the same occasion that Dr. Ridley brought this patient he gave me the photograph which I now show you. There is a great advantage in seeing things in bulk rather than by samples, and this group may serve well to impress upon the memory the peculiar features of English cretinism. It is to be observed in the first place that none of the individuals represented are really children. In all there has been an arrest both of mental development and physical growth. They have remained dwarfs in stature and semi-idiots as regards intellect. It would also appear that the sex characteristics have been suppressed. Dr. Ridley tells us that at one time his cretinoid patients had numbered ten, but no fewer than five had died of pulmonary phthisis. In the year 1855, during a tour in Switzerland, I visited an establishment for cretins which was maintained by a Dr. Gughenbull, I think near Interlaken. I there saw a considerable number of patients, many of whom had, if I remember rightly, goitres, and all of whom were stunted both in body and mind. I subsequently published an account of the Institution which was, I believe, the first of its kind. Dr. Gughenbull was afterwards accused of gross exaggeration as to the number of his patients and his success in benefiting them, and as he had obtained a good deal of money from benevolent persons in England he got the soubriquet of Dr. Gulljohnbull. He certainly did not show me a third of the patients whom he professed to have under care; the others were, he said, "in the fields." My



A group of cretinoid patients, taken in 1894. Their ages varied from 18 to 40. The two on the left are brothers; there had been three, but one had died. None had ever been on thyroid treatment.

interest was, however, in the disease rather than the Institution, and I well recollect that I was greatly impressed by what I was shown. Some time before that visit I had published a case which, on the authority of my much valued friend, the late Dr. Hilton Fagge, I may, I believe, claim as one of the first records of cretinism in England. Since that time I have had but few opportunities of seeing the disease, but I have not ceased to regard it—and the very remarkable discoveries which have thrown light upon its nature and taught us how to cure it—with the utmost interest. For these advances in our knowledge we have been indebted to the Swiss surgeon, Reverdin, to Kocher, Gull, Ord, Horsley, Semon, and last, but by no means least, to Dr. George Murray, of Newcastle.

It is now common knowledge that the diseases known as cretinism, myxœdema, and cachexia strumipriva, are all phases of the same malady. They all depend upon defective supply of the secretion of the thyroid gland to the blood. This defective supply may be dependent upon either atrophy, or disease of structure in association with hypertrophy. In the cases which we see in English children the condition is usually, as in Dr. Ridley's patient, one of extreme atrophy or even absence of the thyroid. The great difference between cretinism and the myxœdema of adults concerns the age at which the gland fails in its function. If the failure is present from the earliest periods of childhood, there is general arrest of development; whereas, if it only occurs in adult life we encounter only the evidences of myxœdema. This it is easy to understand, and it comes into line with many other chronic maladies in which very great peculiarities are produced if the causes come into play before full growth has been attained.

A problem of great interest for us is the explanation of sporadic cretinism in England. Why should it happen that every now and then a child is born either without a thyroid or with the gland in a state of atrophic inefficiency? We may perhaps gain some light by taking note of the facts as observed in Switzerland. There it is well known that the cretins are usually the offspring of goitrous parents. The water of certain wells produces enlargements of the thyroid. These enlargements are often of very great size, but are not associated with any tendency to myxœdema. Yet the children of those who have suffered from them are liable to be born with glands defective in function, and thus to develop the myxœdema of childhood, that is, to become cretins. Now, in England, goitres are comparatively rare and very seldom of large size. I am not aware whether any collection of facts has as yet been made in England which would enable us to connect sporadic cretinism with parental bronchocele. There are many facts, however, which give support to the belief that there must be a connection between the two. Amongst the laws of hereditary transmission there is probably one under which disease of any viscus, whether structural or functional, occurring in a person about to become a parent, may lead to defective development or even absence of that viscus in a child.

NOTES OF CASES DEMONSTRATED IN THE CONSULTATION THEATRES.

MEDICAL CASES.

BY JAMES TAYLOR, M.D., F.R.C.P.

Tuesday, January 6, 1903.

Hemicrania and Third Nerve Paralysis.

THIS case was an example of a very rare clinical condition, namely, the occurrence of recurrent attacks of hemicrania which become associated with a paralysis of the third nerve. In the early seizures the paralysis is of temporary duration and disappears soon after the subsidence of the headache. Later, however, it tends to be more persistent, and in time it usually becomes permanent. The headache is sometimes described as migraine, but it does not really conform to that condition. Thus it is not accompanied by the subjective visual disturbances which distinguish an attack of migraine. The history of these cases is simply one of repeated attacks of unilateral headache, with each of which there is also drooping of the corresponding upper eyelid (ptosis). The attacks tend to become more severe, but in the intervals which separate them the patient's health appears to be unaffected. Further, examination generally fails to find any other evidence of nervous or other form of organic disease. The paralysis, as a rule, is limited strictly to the third cranial nerve, there is no anæsthesia, the fundus oculi shows no change, and the visual fields are normal.

In a few instances an opportunity for *post-mortem* examination has occurred, and definite organic changes in the third nerve have been detected. These have been in the form of thickenings of the sheath of the nerve, or of tumours in the nerve trunk. It may at first sight seem strange that permanent and gross changes of this order can be responsible for symptoms which are, at least in their early history, of a conspicuously evanescent character. The presumption is that the tumour or other anatomical change does not, in its early stages, seriously interfere with the conduction of nerve impulses, except when—by some chance we cannot explain—congestion or inflammation occurs in its neighbourhood. In this event the nerve path becomes fully blocked, and ptosis and other signs of third nerve paralysis appear. As the inflammatory condition subsides, the nerve path is once more open, and the paralysis disappears. By frequent repetition of this order of events, or by extension of the original lesion, the pathological changes in the nerve trunk become sufficiently extensive and pronounced to form a permanent block, and thus lead to permanent paralysis. This, it may be presumed, is the essential pathology of cases of hemicrania associated with recurring third nerve paralysis.

The patient shown by Dr. Taylor was a girl of some twelve years, and the history of her complaint extended over a couple of years. Since the last attack of hemicrania the ocular paralysis had persisted, and this, too, in spite of the lapse of some weeks and the use of the constant current. That fact, of course, is somewhat ominous.

The age of the patient is in harmony with other records of this condition. Most of the sufferers have been children, and it is to be noted that occasionally a temporary and recurring third nerve paralysis has been observed in infants. These probably belong to the same clinical group as the older patients, though whether in them hemicrania accompanies the paralysis must necessarily be a matter of uncertainty.

A Case of Myasthenia Gravis.

This was another patient in whom ptosis and ocular paresis were the prominent objective facts. Further, as in the first patient, the paralysis had not been continuous but had been interrupted by periods of healthy muscular activity. In both of these respects, therefore, the two cases had an obvious clinical association. But while, in the child, the paralysis was unilateral, in the case now to be related the movements of both eyes were affected; and in their essential pathology the two cases belong to entirely different groups. The patient now to be considered was a man of 45 years, and he had been under observation at intervals since 1894. When first seen, he gave a recent history of double vision followed by drooping of the upper eyelids, and there were on each side distinct defects of the ocular movements, and ptosis. Patient admitted having suffered from specific disease some years before, and this, taken together with the paralytic phenomena, seemed sufficient to justify a probable diagnosis of degeneration of the nuclei of the third nerves, with its necessary corollary—a bad prognosis. After some little time, however, the ptosis disappeared, and the movements of the eyeballs regained their normal range. At a later date the paralysis and subsequent improvement were again, in turn, repeated. Still later, the patient became conscious of weakness in his arms, and this to such an extent that he could not continue his occupation—that of a painter. This condition still persists, that is, while he is apparently strong and vigorous, when he commences to work his arms rapidly tire, and he soon becomes quite exhausted. And more recently, he has made a similar complaint regarding his lower limbs, so that after walking a comparatively short distance he is obliged to rest. There has also been a return of the original condition of paralysis of the movements of the eyeballs, and ptosis. Such a history does not suggest the original diagnosis of organic change in the central nerve nuclei. On the contrary, it points to a rare and recently recognised form of nervous disease known as myasthenia gravis. This condition is distinguished clinically by paresis developing after exertion, and by return of the muscular power after a period of rest—the patient is, for example, more efficient after the night's rest than he is later in the day. The movements most commonly affected are those of swallowing, chewing, and articulation, so that the case at first looks like one of commencing bulbar paralysis. In several instances, as in the present patient, the ocular movements have been involved. Sooner or later the muscles of the limbs and back suffer, and, what is still more serious, the respiratory muscles become involved. This latter fact may lead to attacks of serious dyspnœa, and some of the patients have died suddenly with signs of asphyxia. The disease usually commences in early adult life, and its distinguishing features are the relation of paralysis to exertion, and its more or less complete remission under the influence of rest, as is well illustrated in the clinical history of the present patient. The pathology of the condition is very obscure. Examination of the central nervous system by the most modern methods of research has failed to detect any histological change. The conditions under which the paralysis appears may be held to suggest the production of a toxin, possibly as the result of muscular contraction, which temporarily inhibits either the motor nerve nuclei, or the nerve-endings in the muscular fibres, or the muscular substance itself; in time it may be presumed this toxin is eliminated, and the motor power is then restored. Some support for this suggestion may be found in the fact that artificial stimulation of the muscles in a myasthenic patient produces the same consequences as voluntary contraction; the passage of a faradic current at first produces a normal response from the muscle, but on continuing the stimulus the contractions become more and more feeble and ultimately are altogether lost, to be recovered, however, after a period of rest. In reference to treatment, the best results have been obtained by the hypodermic injection of strychnine.

One other feature of Dr. Taylor's case is worthy of note It was observed that the extensor muscles of the forearms were decidedly weaker than the flexors. Possibly this has some relationship to the fact that the man has for many years been a painter and has had several attacks of colic and "painter's gout." He has never suffered from wrist-drop, and the weakness of his limbs only occurred some years after the first onset of the ocular paralyses. Hence it may be that, in a restricted sense, lead poisoning is an element in the case, but it is certainly not the main, or even a very prominent, factor.

A Case of Pachymeningitis.

The patient, a man of 40 years, complained that some three months ago he was suddenly attacked with difficulty and unsteadiness when walking. When first seen there was very marked ataxia. But there were no other objective evidences of organic nervous disease. The knee-jerks were marked and possibly excessive, sensation was unaffected, the pupils presented normal reactions, and there was no history of "shooting" or other pains in the lower limbs. These facts were sufficient to exclude tabes dorsalis from the diagnosis. A lesion involving more or less the whole thickness of the spinal cord could also be excluded, for there was no loss of power in the lower limbs, and no interference with the functions of the bladder and rectum. As a nominal diagnosis, therefore, the case might be classed as one of ataxic paraplegia. That, however, does not advance matters to any degree. It is merely a name indicating the existence of defective co-ordination in the movements of the lower limbs. Such a combination of symptoms as this case exhibits has, no doubt, often been interpreted as signifying a lesion involving both the posterior and the lateral columns of the spinal cord, but it is becoming in an increasing degree a question whether, in this pathological sense, a distinct group of "ataxic paraplegias" ought to be recognised. In the present case, the existence of ataxia without other objective evidence of organic nervous disease probably receives some measure of explanation from the fact that the patient admits the presence of a sense of constriction round the abdomen (girdle sensation), though he denies any pains in the lower limbs. Such a symptom suggests pressure on, or irritation of, the posterior roots of the spinal nerves—a condition likely to result from thickening of the membranes of the spinal cord. This may be due to syphilis, and the patient admits he has suffered from this disease. Interference with the function of the posterior roots may, of course, cause ataxia. For it means imperfect conduction of afferent impulses from the muscles. Hence the spinal centres do not receive the information necessary to enable them to adjust and co-ordinate their activity to the amount of muscular action required for any particular movement, and consequently any attempted movements are likely to be disorderly and irregular. There is, in other words, inco-ordination or ataxia. The facts of the present case are therefore covered by the suggestion that the patient has some thickening, probably syphilitic in nature, of the membranes of the spinal cord, and that as a result of this there is interference with the posterior nerve-roots, which has expressed itself in the form of the "girdle sensation," and ataxia in the movements of the lower limbs. And this diagnosis is confirmed by the fact that the patient has much improved under full doses of potassium iodide. The improvement justifies the expectation that a still further advance may be anticipated.

The Question of Operation in Epilepsy.

A woman of 28 years, the subject of epilepsy, was sent for consultation in order to decide the question whether an operation should be advised in view of the fact that there was a history of injury to the skull. It appeared that when two years of age the patient fell and fractured her skull, and that she had suffered from generalised epileptic seizures from the time when she was seven years of age. Further investigation showed that the patient was born as the result of a difficult instrumental labour, and that even in her earliest days she was abnormal or peculiar as regards her mental faculties. This was held to be a fact opposed to the suggestion that the epileptic seizures were the consequence of the fracture of the skull, and also to the proposition of operative interference. It was further pointed out that a fall producing fracture of the skull at two years of age was in itself sufficient to justify a suspicion of some abnormal cerebral condition already present. Even apart from these facts throwing doubt on the reported fall as a cause of the epilepsy, there was the consideration that the convulsive attacks are generalised and not restricted to one side of the body, and that there is therefore nothing in the fits themselves to suggest focal disease. Again, a history of epileptic fits extending over a period of twenty years or more is anything but an invitation to operation. The habit of the nerve-centres has become fixed, and even the removal of a focus of irritation is not likely to eradicate the habit. And as a result of general experience it is found, that except in cases where there is depression of the bone, operation in cases of traumatic epilepsy is not a hopeful procedure. The surgical wounding of the brain tissue is necessarily followed by the formation of scar tissue, and this continues the irritation of the already weakened brain cells. In view of these facts and experiences, it was decided that the present case was unsuitable for operation, and that nothing remained but to endeavour to control the seizures by the judicious and persevering use of potassium bromide.

BY HARRY CAMPBELL, M.D., F.R.C.P.

Tuesday, January 13, 1903.

Tabes Dorsalis and Ocular Paralyses.

Two patients were shown to illustrate the association—a not infrequent one—of paralysis of the ocular muscles with clinical evidences of tabes dorsalis. Both patients were men approaching middle age, and in each there was a history of syphilis acquired in early adult life. Perhaps the most important fact emerging from a study of these cases was contained in the statement that, in the view of each patient, the chief or even sole ground of complaint was the state of his vision. The one complained of double vision, the other of drooping of his upper eyelid. And if only these defects could be remedied, neither patient would consider himself in any sense sufficiently ill to need medical advice. Yet the history and examination of the case in each instance afforded conclusive evidence that the patient was the victim of serious organic disease of his central nervous system, and that this disease was tabes dorsalis, or sclerosis of the posterior columns of the spinal cord. The inference is obvious, and it is enforced by frequent experiences of the same order, that the first event to attract the patient's attention in the evolution of tabes dorsalis may be an ocular paralysis producing either diplopia, ptosis, or other signs of third nerve paralysis. It is indeed safe to say that the occurrence of any one or more of these symptoms, unless capable of other explanation, is sufficient to justify a suspicion that the patient is the subject of degenerative changes in his central nervous system, and that he will sooner or later suffer from the spinal symptoms of tabes dorsalis. This is more especially true when the paralysis occurs in a patient who has reached or is approaching middle life. And the suspicion is not seriously weakened even by the disappearance of the paralysis. Indeed, such paralyses are often transient, and they not infrequently are repeated after intervals of varying length and of apparent good health. Even when a thorough examination of the nervous system gives in other respects entirely negative results, the existence of an ocular paralysis is sufficient to cast suspicion on the integrity of the central nervous system. In each of the present cases there were evidences more than sufficient to confirm the suggestion conveyed by the fact of paresis of the ocular muscles. Each patient admitted a history, extending over several months, of "shooting" pains in the lower limbs, though in neither was there any recognised difficulty in walking. Such pains, at least when bilateral, are strongly suggestive of tabes dorsalis. Sciatica does occasionally affect both limbs, and may in this form be due—apart from a widespread peripheral neuritis—either to a tumour or other intrapelvic condition, or to a neuritis accompanying diabetes mellitus. Care must therefore be taken to exclude these possible causes in any case which appears to be one of bilateral sciatica. But apart from these exceptional instances, sharp, shooting pains in the lower limbs almost invariably mean tabes dorsalis. They have this interpretation, even though the knee-jerks be retained—a fact which was illustrated in one of the two cases now under consideration. For whilst in one of the patients the knee-jerks were absent, the other, though giving a history of pains in the limbs for so long a period as four years, had knee-jerks which were quite up to the normal level. Another frequent and often early symptom of tabes dorsalis is some disturbance of the functions of the bladder, and one of the patients, questioned on this point, admitted that he had for some time observed the flow of urine to be slow and deficient in force, with an occasional degree of incontinence. In the other patient there were no symptoms of this order, but the pupils displayed the Argyll-Robertson phenomena, being, as regards size, however, rather dilated than small. Thus in neither patient could there be any doubt as to the nature of the case or the accuracy of the diagnosis, and the history was conclusive that the disease had in each instance been in progress for at least two or three years. Yet neither patient had been at all alarmed about his condition until the development at a recent date of an abnormal state of his vision. The cases thus illustrate what is frequently observed in the clinical history of tabes dorsalis, at least in patients who avoid a visit to the doctor so long as this is at all possible. Pains in the limbs are explained away as rheumatism, a delayed or sluggish character attending the act of micturition seems of no particular moment, gastric crises are attributed to dyspepsia, and an Argyll-Robertson pupil causes no subjective inconvenience. But such events as ptosis, diplopia, or failure of sight from optic atrophy, are events which cannot be disregarded, and they appear to be signals of danger even to the most careless. Hence, whenever they occur the patient comes promptly under medical observation, whilst such other symptoms as have just been mentioned may exist, at least in their less severe forms, for months or years without causing serious concern or anxiety. It must also be added that pains in the limbs, bladder disturbances, and even gastric crises, especially when unaccompanied by objective evidences of tabes dorsalis in the shape of Argyll-Robertson pupils or loss of the knee-jerks, may readily be misinterpreted by the practitioner, unless he is alert to recognise their possible significance. An ocular paresis forces his attention, just as it commands that of the patient. But symptoms less obvious—though hardly less significant—may somewhat easily fail to suggest their true meaning as events pointing to a diagnosis of tabes dorsalis. It is all-important to maintain a distinct recollection of the various fashions in which this disease may commence, and the two cases here recorded afford a useful illustration both of one of these modes, and also of the possibility of a patient minimising his symptoms until such an event as an ocular paralysis renders disguise no longer possible.

A Case of Paramyoclonus Multiplex.

The patient was a youth of 15 years, and he exhibited the phenomena of the condition named *Paramyoclonus multiplex* in a very striking fashion. Several times in the course of a minute there could be observed sudden, short, clonic, muscular spasms affecting the limbs, trunk and head. The spasms were most marked in the proximal parts of the limbs, as in the thighs, and muscles of the shoulder girdles ; they were also well seen in the abdominal walls, and, affecting the neck muscles, they produced sharp nodding movements of the head. In addition to their shock-like character, it was noted that the spasms occurred in symmetrical distribution, and that corresponding parts on opposite sides of the body were affected at or about the same moment. Sudden, involuntary, clonic spasms, of momentary duration, occurring with bilateral distribution, and affecting at the same instant opposite regions of the body, are the leading clinical features of paramyoclonus multiplex. The symmetry is not always exact, nor are the bilateral spasms always precisely simultaneous. But the two sides of the body are invariably affected, and, if the contractions on the two sides do not occur at one and the same moment, they display at least a close time-relationship the one to the other. To this must be added the further statement that the muscular spasms of paramyoclonus never correspond to normal purposive movements, nor are they capable of being voluntarily reproduced. They usually affect single muscles or only parts of muscles ; but even when they attack at one and the same moment a number of muscles in the same neighbourhood, they never imitate a movement produced for some definite physiological purpose. The case shown by Dr. Campbell was effectively placed in contrast with a patient the subject of chorea, in whom, as is indeed frequent, the involuntary movements were for the most part limited to one side of the body. The different characters of the spasms in the two cases were well seen. In the one, sharp, short, bilateral spasms affecting the trunk and proximal parts of the limbs and incapable of imitation by an observer. In the other, spasms clonic in form but without the "electric" character that marked the case of paramyoclonus, mainly confined to one side of the body, conspicuous rather in the distal than the proximal parts of the limbs, and producing movements which, though wanting in purpose, could easily be imitated by voluntary effort. One other point of contrast may be named. The clonic spasms in the patient with paramyoclonus ceased during the performance of any voluntary act, whilst the same condition, as is usual, increased the disorderly movements of chorea. The rules in these respects are not, however, invariable.

Lastly it has to be noted that the myoclonic patient was the subject of epilepsy. This is a not infrequent association. It has been observed with such a degree of frequency as to suggest some relationship between the two conditions. The pathology of paramyoclonus is quite obscure. The disease is perhaps best regarded as a functional motor neurosis. The prognosis is not good. The condition, though sometimes showing improvement, is apt to recur and may persist for years and even throughout life. Arsenic, bromides, electricity, have all at various times been credited with power to check the spasms, but none of them can claim unvarying success.

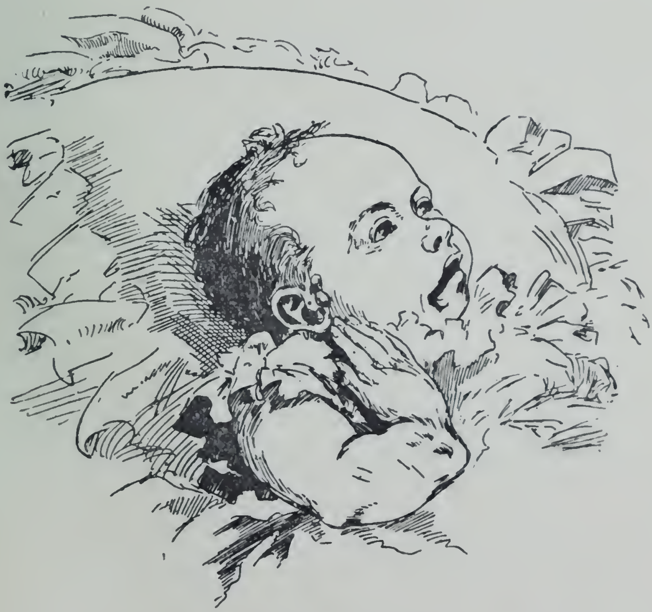
SURGICAL CASES.

BY J. JACKSON CLARKE, M.B., F.R.C.S.

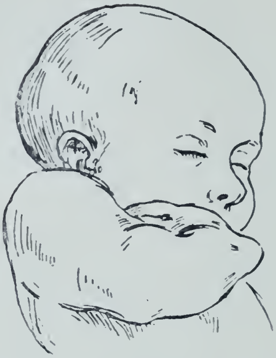
Wednesday, January 7, 1903.

Rickets—Macrostoma—Club-hand—Osteotomy, &c.

Mr. Jackson Clarke showed two children illustrating the chief clinical features of rickets; one of them had also some interesting congenital deformities. The latter consisted of a unilateral *macrostoma* associated with severe *club-hand* (see pp. 83-84). In addition, there were three little pear-shaped knobs of skin in front of the ear and another at the lower edge of the macrostoma. Mr. Clarke had closed the macrostoma by operation when the patient (now aged 3 years) was a few days old; the child had previously been thin but soon gained flesh after the repair of the cleft. The club-hand was associated with absence of the whole of the radius, except the head, and it had resisted all attempts to guide it into shape by apparatus; it is proposed to correct it by operation when the patient is a little older. Is there any possible connection between these congenital defects? In reply to this question it may be suggested that a deficiency



Child with macrostoma, aural tubercles, and club-hand.



Suggested mode of origin of macrostoma and club-hand by accidental intra-uterine position.

of liquor amnii caused, at an early period of fœtal life, the right hand to become fixed in the inter-mandibular cleft, and that this event both prevented normal closure of the cleft and also the development of the radius.

The child within the last few weeks has developed signs of rickets—enlargement of the epiphyses of the long bones, "beading" of the ribs, pigeon-breast, and some laryngeal and bronchial catarrh. There is also tumefaction at the root of the nose which has led to a suspicion of the presence of adenoids. [Dr. Herbert Tilley has since examined the child and has found adenoids in sufficient quantity to require operation.] Mr. Clarke argued that adenoids are part of a widespread hypertrophy of lymphoid tissue which is a feature of the pathology of rickets; every rickety child, he contended, has adenoids in a greater or less degree.

The second patient was a dwarfed girl of 13 in whom knock-knee had been well corrected by a Macewen's osteotomy. There were other curves in the femora and tibiæ. It was pointed out that by the use of suitable apparatus, applied during the active stage of rickets, patients with knock-knee—whether children or adolescents—could be cured, and that not only the genu valgum but also the associated deformities could be completely removed. Further, the necessity for such apparatus is not avoided by operation, as it is an essential feature of the after-treatment if return of the deformity is to be prevented in all cases in which any active rickets is present. Mr. Clarke therefore advocates the treatment of genu valgum and allied deformities by means of judicious mechanical appliances. Only in quite exceptional cases does he find osteotomy to be a necessary operation.

DISEASES OF THE SKIN.

BY J. M. H. MACLEOD, M.D., M.R.C.P.

Monday, December 15, 1902.

A Case of Lymphodermia in Localised Patches.

The patient, a middle-aged woman, presented a large pad-like patch of thickened skin measuring about three inches in breadth and extending in each lower limb from the ankle to about two inches below the knee. These patches were clearly demarcated and were raised above the level of the skin—from a quarter of an inch at the upper part to three-quarters of an inch at the ankle. The affected skin was yellowish-pink in colour and deeply infiltrated. The surface was irregular and presented numerous roundish, semi-translucent nodules, each about the size of a split-pea, and giving to the condition an appearance that has been aptly compared to frog's spawn. The patches had been present for about five years.

This unusual case is an example of what has been termed *Pachydermia lymphangiectatica*, or localised elephantiasis. The patient is also the subject of exophthalmic goitre, but no causal connection can be traced between the general complaint and the affection of the skin. Nor has any adequate explanation been found for the lesions on the skin. There is no blockage of the veins of the thigh and no history of repeated attacks of erysipelas such as have been known to set up thickening of the integuments in the lower limbs. The treatment has been conducted on purely general principles and has included massage of the affected limbs. The result has been distinct improvement in the general health of the patient, the patches have acquired a softer character, and for the last two years they have not increased in size.

A Case of Follicular Psoriasis.

The disease began when the patient, a boy of 7 years, was five years of age—a somewhat early age of incidence for psoriasis. It first appeared in patches on the inner sides of the thighs and subsequently attacked the elbows, trunk, and scalp. But in addition to the larger patches in the usual situations, on the abdomen and back extending up on to the neck and down the limbs, there was an eruption of smaller lesions, varying in size from a pin's head to a split pea. These consisted of small, acuminate scales, situated on a vivid pink base. So acuminated were these lesions that on passing the hand over the back of the neck, where they were specially numerous, the skin felt like a nutmeg-grater. The lesions were found to be situated at the orifices of the lanugo hair-follicles. They were absent from the skin of the hands and feet; a patch of psoriasis was present on the penis.

The case is of interest owing to the difficulty in making a diagnosis between the smaller lesions and those of Pityriasis rubra pilaris. Indeed, many of the smallest ones are practically identical with those of the latter disease. The scales are much harder and more adherent than those of ordinary psoriasis and are here and there associated with horny plugs passing into the hair-follicles. The more discrete distribution of the eruption, the fact that the backs of the fingers are unaffected, and the presence of ordinary patches of psoriasis in the usual situations, show that the case is not one of Pityriasis rubra pilaris, but is an example of the unusual type of psoriasis which has been named *psoriasis follicullaris*. Dr. Macleod also discussed the histo-pathology and treatment of the condition.

Alopecia Areata of "Patchy" Type.

The case of a boy, aged 11 years, the subject of alopecia areata was demonstrated in conjunction with a case of *tinea tonsurans* (due to the small-spored fungus of ringworm) in a boy, aged 6 years. The object of showing the two cases together was to point out the close similarity in the mode of invasion of the scalp in the two diseases. In each there was a mother-patch surrounded by a number of satellites of various sizes. In the one case the patches were scaly and covered with the stumps of hairs infected with the ringworm fungus, in the other the patches were pinkish and were dotted over with plugged follicles and a few "point of exclamation (!)" hairs. Though a parasite as the cause of alopecia areata has not yet been established, such appearances as those seen in the above case are strongly suggestive of a parasitic origin for this type of the disease. There are other cases of alopecia, however, which do not present this similarity to ringworm in their mode of attack, and in these there is no suggestion of parasitism.

Kerion or Suppurative Ringworm of the Scalp.

A boy, aged 7 years, the son of a stableman, was shown with a raised conglomerate patch of ringworm on the scalp about the size of a five-shilling piece and of fourteen days' duration. From the surface of the patch beads of pus oozed out and had dried to form sticky crusts, and a few stumps of hair were dotted over the patch. Microscopical examination of the hair stumps showed the presence of a large-spored fungus situated between the root-sheaths of the hair and the cuticle, the latter being intact. The fungus in the hair had the appearance of true *trichophyton ectothrix*, but as it had not yet been cultivated its identity could not be definitely stated.

Such cases of ringworm as the above are usually of animal origin, and though, as the boy has only been under observation a couple of days, the conclusion has not yet been verified, it is probable he has acquired the disease from some animal, perhaps a horse or a cat. The comparative ease of the treatment of such cases of ringworm was then referred to, and it was pointed out that the suppurative cases of this variety of ringworm are readily treated with success. Indeed, the suppurative process which is produced by the fungus, itself destroys the fungus. All that is necessary in the shape of local treatment is to gradually reduce the inflammatory condition according to general principles. The ringworm will be found to have been eradicated by the local suppuration. Such a result is an indication of the line of treatment of the other varieties of ringworm. Thus the most rapid and effective means of dealing with the common small-spored variety is to produce, by croton oil or some other such agent, an artificial kerion, then epilate the hair, and afterwards reduce the inflammation.

Lupus treated by the Finsen Rays.

The following three cases had been under treatment with the Finsen rays at Charing Cross Hospital. (1) *Lupus vulgaris.*—A patch about the size of the palm of the hand, situated on the neck and chin of a girl aged 17 years. Patient had been under treatment for seven months, and had had about thirty-five exposures. (2) *Lupus vulgaris.*—A patch about the same size as that in the first case, situated on the right cheek. Patient, a girl aged 16 years, had been under treatment eight months, and had had about forty exposures. (3) *Lupus erythematosus.*—A single patch of Lupus erythematosus (seborrhœic type) about the size of a florin and situated on the left cheek. Patient, a woman aged 42 years, has had about sixteen exposures.

In the first case the disease is practically cured, so far as can be judged at the present time. The granuloma has completely disappeared, and an excellent scar, smooth and only slightly redder than the surrounding skin, has resulted. The redness will disappear in the course of two months or so.

The second patient is still under treatment, but promises to give an equally satisfactory result to that seen in the first case.

Regarding the third case, it is an invariable experience that Lupus erythematosus does not react well to the Finsen rays, and in some of the cases the treatment does actual harm. In the thickened sebaceous or seborrhœic type of the disease—*Seborrhœa congestiva*—the outlook is somewhat more hopeful. The present patient has improved to some extent. The patch is less irritable, smoother, and not so noticeable as it was before treatment with the rays was commenced.

The Study of the History of Medicine.—"But meantime the study of medicine proper, that is, of the healing art, remains even now to a very large extent governed by precedents derived from the past. Nor can this ever be otherwise; for the whole art of medicine is steeped in antiquity, and draws a large part of its most accurate and striking observations from a date long before the Christian Era. So long as it can be said with truth that we inherit the labours and the very language of the schools of Cos and Cnidus—so long as we follow prognostics derived from Hippocrates, and details of symptoms taken from Aretaeus, it cannot be a matter of indifference to an enlightened medical man, whether or not he knows those languages which bridge over the chasm between the nineteenth century and those remote epochs. I am not at all, therefore, on the side of those who, because they have cast aside the fetters imposed on our art in the Middle Ages, would therefore forget that medicine has a history. Rather would I have you use the freedom of the modern physician in such a way as to make it a graceful and real tribute to those great men whose names still shed a lustre over the healing art, and over the history of human opinion in all the arts and sciences."—Sir Wm. Gairdner.

CORRESPONDENCE AND ANSWERS.

A Cosmetic Operation.—In Dr. John Brown's short biographical paper on Mr. Syme it is told that a country clergyman, much beloved of his people, was afflicted by an enormous shapeless enlargement of his nose, and in his distress applied to Syme for relief. Syme promised to give him once again a shapely nose, and told him he might choose his style—"Grecian, Roman, or Cogitative." The minister selected the "Cogitative" variety, and with this went back to his faithful people having a nose as good in colour and in shape as any of theirs. So successful, indeed, was the new nose that some of the parishioners were not quite pleased, as they feared it might cause other churches to covet and "call" a minister who could boast so elegant and interesting a feature.

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Post-Graduation Training.—"There is one great difficulty of modern times, the choosing, not only what to know, but what to trust, what not to know, and what to forget. Often when I see some of our modern Admirable Crichtons leaving their university armed *cap-à-pie*, and taking the road where they are sure to meet with lions of all sorts, I think of King Jamie in his full armour—'Naebody daur meddle wi' me, and,' with a helpless grin, 'I daur meddle with naebody.' Much of this excess of the material of knowledge is the glory of our age, but much of it likewise goes to its hindrance and shame, and forms the great difficulty with medical education. Every man ought to consider all his lecture-room knowledge as only so much outside of himself, which he must, if it is to do him any good, take in moderately, silently, selectly, and by his own gastric juice and *chylopoietics*, turn, as best he can, *in succum et sanguinem.* The muscles, the cineritious matter, the sense, and the power, will follow as matters of course. And every man who is in earnest, who looks at nature and his own proper work with his own eyes, goes on through life demolishing as well as building up what he has been taught, and what he teaches himself. He must make a body of medicine for himself, slowly, steadily, and with a single eye to the truth. He must not in every emergency run off to his *Cyclopædias*, or, still worse, to his manuals. For in physic, as in other things, men are apt to like ready-made knowledge, which is generally as bad as ready-made shoes, or a second-hand coat. . . . What will make a valuable physician or surgeon now . . . must, in the main, be the same as that which made Hippocrates and Sydenham, Baillie and Gregory, what we glory and rejoice to think they were."—Preface to "Essays on Locke and Sydenham," by John Brown, M.D.

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The Basis of Accuracy.—"It is this ὰκρίβεία of the wise and subtle Greek, this accuracy (*ad* and *cura*) of the stout Roman, that is the eye of the physician and its memory, and it depends greatly on vivid *attention* in the act of seeing; as Dr. Chalmers said, there is a looking as well as a seeing. 'I've lost my spectacles,' said good easy Lord Cunninghame, as he was mooning about Brougham Hall in search of them, when on a visit to his vehement old friend, its lord, whose mind was always in full spate. 'Where did you lay them?' said Brougham. 'I forget.' 'Forget! you should never forget; nobody should forget. I never forget. You should attend; *I* always do. *I* observed where you laid your spectacles; there they are!'"—Dr. John Brown.

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Hæmoptysis without Thoracic Disease.—"I have repeatedly seen both profuse hæmoptysis and epistaxis as results of an habitual excess of alcohol and a deficiency of nutritious food."—Sir Geo. Johnson, M.D.

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Influence of Climate in Cases of Graves' Disease.—Dr. Stiller, of Buda-Pesth, in 1888 recorded two cases of Graves' disease in which good results were obtained from sending the patients to mountain residences (1,500 to 5,000 feet). Other observers have borne similar testimony. No doubt change of residence to sea or mountain, according to idiosyncrasy, is the most important measure in the treatment of this affection.

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Notes on Arsenic.—Typical peri-axial degeneration of the peripheral nerves has been proved in a certain number of cases of arsenical-beer poisoning.—Dr. Craven Moore, Owens College.

Amongst other facts in the pathology of arsenical poisoning it has been proved that the liver is often congested and swollen, and that it may become cirrhosed.

Dr. Reginald Lawrence (Vict. Univ.), as the result of experimental investigation, arrived at the conclusion that "Arsenious acid alone is capable of producing degenerative changes in the cells of the spinal cord." He found "well-marked degenerative changes in the cells of the spinal cord and the posterior root ganglion."

See a paper "On the Medicinal Uses of Arsenic," in the October (1892) No. of *Archives*, page 98. It records Mr. Hunt's opinions, and also credits Sir Erasmus Wilson with the observation that arsenic may produce thickening of the epidermis over the palms and soles, "and may occasion the formation of minute granular corns, each little corn corresponding with the aperture of a sudoriparous duct."—Lectures, 1873.

* * *

Food Origin of Leprosy.—Amongst those who thoroughly accept the *de novo* origin of leprosy cases in India, and who believe that it is in some way attributable to food, we have no less an authority than Surgeon-General Francis, formerly Professor of Medicine in the Medical College of Calcutta (see No. 1 of the *Leprosy Journal*, page 53). He mentions that "the natives of India have an idea that leprosy may be induced by drinking milk after eating fish."

* * *

Sciatica and Morbus Coxæ.—In the differential diagnosis between sciatica and morbus coxæ senilis it is important to lift the limb up from the couch with the knee kept quite straight. This stretches the trunk of the nerve over the back of the hip and thigh, and gives pain if it be inflamed. The pain is always produced when a certain elevation is reached. Most other movements at the hip, in cases of sciatica, are borne without complaint.

ARE APES LIABLE TO BERI-BERI ?—Wallace describes his young orang-outang as dying of an illness attended by "intermittent fever, loss of appetite, and watery swellings of the feet and head."

* * *

WALLACE, in his account of travels in the Malay peninsula, states that the Chinese Dyaks and Malays do not use milk as food.

* * *

PERFORATING ULCER OF THE FEET.—Cases have been recorded in which there appeared to be a family tendency to this condition and independently of tabes. Dr. Carey Coombs, of Castle Cary, has recorded an example of this in the *British Medical Journal* (1897).

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AN ERRONEOUS ASCRIPTION.—An intelligent Japanese quaintly described symptoms which he attributed to quinine: "It is as if I had taken too much marmalade." There was tincture of orange in his prescription.

* * *

VACCINATION.—Lymph kept in tubes may be found efficient at the end of fifteen years. It may be kept in an ice-house or exposed to tropical heat without protection, and yet lose none of its efficiency.

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WHEY IN RHEUMATISM.—Abuthnott in his "Practical Rules of Diet" has the following :—"If there be a specific in aliment for rheumatism it is whey. I knew a person subject to this disease, who could never be cured by any other method but a diet of whey and bread."

* * *

DR. WM. BUDD.—The following passage appears in an introduction to the English translation of the "Life of Pasteur" and is from the pen of the late Professor Tyndall : "Where the mind of genius discerns the distant truth, which it pursues, the mind not so gifted often discerns nothing but the extravagance, which it avoids. Names, not yet forgotten, could be given to illustrate these two classes of minds. As representative of the first class, I would name a man whom I have often named before, who fought, in England, the battle of the germ theory with persistent valour, but whose labours broke him down before he saw the triumph which he *fore*saw, completed. Many of my medical friends will understand that I allude here to the late Dr. Wm. Budd, of Bristol."

THE POLYCLINIC

BEING THE

JOURNAL OF THE MEDICAL GRADUATES' COLLEGE, LONDON.

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THE NOMENCLATURE OF CHRONIC DISEASES OF THE JOINTS.

The tyranny of names is proverbial. Useful, and indeed necessary as servants, they are apt to become our masters, and thus to acquire an undue authority and influence. Hence the necessity for selecting them with care. It may be taken as a sound general rule that a name should indicate facts and should not suggest adhesion to a theory. Failure to conform to this rule has been responsible for much confusion of thought, for the vitality of many erroneous ideas, and for the frequent loss of time and temper spent without profit in unnecessary discussions. Names having a theoretical significance have excited controversies even between those in essential agreement regarding the correlative facts. And the thoughts and actions of numberless individuals have been unconsciously ruled and determined by the adoption of terms implying the validity of theories which subsequent investigations have proved to be entirely erroneous. Even the collapse of a theory has not always meant the disappearance of the name based upon it. This, once fixed in the current vocabulary, enjoys the sanction of custom and tradition, and, under such protection, long survives to confuse and mislead succeeding generations.

These statements may find illustration in more than one department of medical experience. They certainly apply with special force to the nomenclature of chronic diseases of the joints. It is hardly too much to say that the contradictions and confusions which flourish with such luxuriance in this department of practice are mainly due to the selection of names that involve certain unproved theories. Consider, for example, such terms as chronic rheumatic arthritis, rheumatoid arthritis, and rheumatic gout. Each of these is applied by different authorities to conditions of the joints essentially the same in their clinical features. And in each there is implied the accuracy of a theory of causation which, in the present state of our knowledge, is a mere speculation. The truth is, that concerning the cause of a large part of the area of chronic joint disease we know nothing. The field is rich in theories and views and suggestions and opinions. But actual knowledge of facts is sadly to seek. To speculations and hypotheses when kept in their proper place there is, of course, no objection. The mistake is their introduction into our nosology. It is this habit of pushing nomenclature in advance of knowledge to which the existing state of confusion and disorder is largely due.

There are those who maintain that chronic changes in the joints are frequently "rheumatic" in nature—a phrase which necessarily suggests that they are caused by the same agency as that which is responsible for the acute polyarthritis of rheumatic fever. In opposition to this it is asserted that there is no such thing as chronic rheumatism, and that whatever the nature of chronic joint disease may be, it is certainly never "rheumatic." The term chronic rheumatic arthritis is therefore not only objectionable on the ground that it is of theoretical import, but also because it begs the question. Whether the conditions to which it is applied are or are not a form of rheumatism is a matter of debate, and the issue is entirely uncertain. Similarly the phrase rheumatoid arthritis, though originally proposed to indicate dissent from the theory of rheumatic causation, has come, not altogether unnaturally, to suggest a relationship of some kind or other between acute rheumatism and chronic joint disease—a proposition entirely speculative, and, as just stated, by some authorities vehemently denied. The history of this phrase is not without significance in reference to the general proposition that the selection of names is a delicate process which should be guided by the existence of obvious facts and not by the adoption of theories. Introduced on the basis of the doctrine that the diseased conditions to which it was applied are non-rheumatic, it has come to mean to large numbers exactly the opposite of this. The limitations and conditions laid down by the original sponsor are forgotten, and the name is made to carry a suggestion which its author repudiated. Further, there are those who maintain that the joint conditions named rheumatoid arthritis are not merely *like* rheumatism, but that they actually *are* rheumatism. And yet again, it is held that these conditions have distinctive clinical characters which mark them out for separate nosological classification and which are never imitated or produced in true rheumatic affections. In these circumstances it would probably help to clear the air were the phrase "rheumatoid," equally with the term "rheumatic," banished from the nomenclature of chronic joint disease. "Rheumatic gout" is obviously, and with added force, open to the same comment, and such terms as "poor man's gout" and the like are similarly condemned by the principle here advocated.

In connection with this question it is but fair to recognise that some of those keenly interested in chronic joint diseases, and ardent advocates of certain etiological interpretations, have abstained, and that in spite of temptation to the contrary, from adding additional speculative names to this department of practice. The defenders of the view that such diseases are the result of pathological changes in the central nervous system certainly come within the scope of this compliment. And we venture to give them all the more credit in view of the fact that the founder of their school actually proposed the term "arthritis myelitica." Again, those who attribute to chronic sepsis a large share in the production of chronic joint affections have in the main been good enough to spare us the multiplication of new theoretical terms. The same is also true of those who look to pressure or repeated slight traumatisms as the exciting cause of these affections. Forbearance in this respect on the part of these several schools has at least saved us from confusion worse confounded. The present position, in all truth, is bad enough. It is more than sufficient to excite pity for the candid observer, who, rich in names, endeavours honestly to apply these to the facts of experience and practice. The moral of all this is, to beware of names suggesting speculative views regarding the relationship or causation of clinical conditions. By all means let us have theories, and the refreshing and stimulating influences which come from them. But let us keep them out of our nosologies. In so far as chronic joint disease is concerned it may be doubted whether in the present state of our knowledge any general term other than chronic arthritis can be justified. Gout, it may be allowed, frequently offers criteria that cannot be questioned, and joint disease associated with these may reasonably be named gouty arthritis. The same principle may be applied to arthritic changes occurring in connection with the specific fevers, pneumonia, syphilis, gonorrhœa, with manifestly pyæmic conditions, and in cases of tabes dorsalis. But apart from all these there is an extensive province of chronic disease of the joints of entirely unknown or doubtful causation. To these the attention of numerous observers has been and still is directed. But there are considerable differences among them in reference both to the terms they employ and to the meanings to be attached to these terms, as well as sharp conflict regarding the etiology of the joint affections. The first condition, essential alike to unprejudiced observation and calm discussion, is the removal of terms which themselves provoke controversy. Chronic arthritis secures this end, embraces all the facts, has the advantage of simplicity, and can plead primitive custom in its defence. When effusion of fluid into the joint cavity is the prevailing note it might be convenient to substitute the term synovitis; and such phrases as osteo-arthritis and arthritis deformans may be allowed when applied to indicate actually existing facts. But such terms as rheumatic, rheumatoid, septic, auto-toxic, trophoneurotic and the rest, had much better be entirely eliminated from our discussions and nosologies so far as the naming of chronic disorders of the joints is concerned. Were this done many happy consequences would follow. The war about phrases would cease. The facts as nature presents them could be recorded without bias. Attempts to establish distinctions based upon extreme cases would no longer be necessary. Accommodation could be found for instances of so-called non-typical character. And the earnest student of clinical and pathological facts could commence his work with a clean slate and undisturbed by the clamour of rival leaders and the claims of competing tabernacles.

C. O. H.

GOITRE IN SOUTH-WEST CHINA.

The following extract may be of interest to those engaged in the study of climatic endemic disease :—

> "Although fortune usually smiles upon the valley of Chien-ch'ang, the inhabitants of its many villages are not to outward appearances a happy race. What strikes the traveller most with regard to them is the prevalence of the unsightly goitre. Neither sex nor age is exempt. The natives attribute it to the inferior salt from the brine-wells of Pai-yen-ching, within the jurisdiction of Yen-yuan Hsien, and their argument is that north of Ning-yuang Fu the salt supply comes from the northern salt springs, and that where this salt is consumed goitre is exceedingly rare, while south of Ning-yuang only local salt is used and goitre is excessively common. This can hardly be reconciled with the statements made to me by the inhabitants of the mountainous regions of the province of Kuei-chou, through which I passed in 1882, and where goitre is remarkably prevalent. They were unanimously of opinion that the disease is due to the salt from the northern springs of Ssŭ-ch'uan, which supply the centre province of Kuei-chou. But the true origin of the disease is doubtless to be ascribed to calcareous and other substances held in solution in the water supply of the districts." [1]

IMPROVED PRACTICE AS TO CANCER.

The advance which has been witnessed in the surgery of mammary cancer may be estimated by the following quotations from a lecture by the most distinguished surgeon of his day, delivered probably about sixty years ago.

After insisting most properly that every bit of the breast is to be removed, and pointing out that scattered nodules in the skin contra-indicate an operation, Brodie proceeds to consider implication of the glands, and it is in respect to them that he left so much to be done by his successors. He writes: "You may say, 'But why not remove the diseased glands from the axilla?' I have done this, and seen it done, and I will tell you what invariably happens. Perhaps you have discovered only one enlarged gland in the axilla; you have determined to remove it; but when you have made an incision into the axilla you find other glands, affected in the same manner, though of too small a size to have been perceptible through the skin before the incision was made." Apparently the suggestion of this possibility (a matter of every-day experience in more modern practice) was deemed to be conclusive against the propriety of the measure. Nor is there any doubt that Brodie so regarded it, for he adds at another place, "There was a lady who applied to me with a scirrhous tumour of the breast. It was small, and so also was the breast; and I should have recommended the operation, but that there were two or three hard and large glands in the axilla. I said to her, 'You have not much suffering; I cannot recommend an operation; let it alone.'" It is recorded that a year later "it was making her life miserable."

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[1] From the *Proceedings of the Royal Geographical Society*, June, 1886. "A Journey in South-Western China, from Ssŭ-ch'uan to Western Yünnan," by Alex. Hosie, H.B.M. Consular Service, China.

Opinions yet more discouraging as regards operation were entertained by the physicians of that day.[1]

A PLEA FOR CARE IN NOMENCLATURE.

We read on the authority of Lord Bacon that "a stubborn retention of customs is a turbulent thing not less than the introduction of new." Under the first half of this censure a distinguished Vienna professor falls when he persists in designating as

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[1] Dr. Copland reprobated "resort to painful and most dangerous operations to extirpate an evil which, instead of being local, proceeds from a morbid state of the system generally." He claims cancer for the physician. "The real importance of this subject to the physician will be the more obvious, when he reflects that cancerous diseases are often—indeed most legitimately on all occasions—within his province." He defined cancer as "a disease often arising from hereditary predisposition in the middle or advanced periods of life, commencing with a local hardness, which subsequently softens in its centre, infects the adjoining parts, and ultimately contaminates the frame." He wrote, "the disease seems commonly to result from an original or acquired diathesis, existing previously to the development of the morbid structure." He also repeatedly mentions "a low and poor diet" as conducive to cancer.

Herpes tonsurans a cryptogamic disease which has no relation to herpes and which all other authorities now call tinea. It is difficult to say whether under the first or second, or both, one of our own authorities comes when he designates as "*Hydroa herpetiforme*" a disease concerning which he himself writes that "it is pathologically a form of pemphigus and differs from it only in its morphology." Clearly a disease which is pathologically pemphigus should be called pemphigus, and any morphological deviations from the common type might be quite adequately indicated by the adjective appended. Hebra has published an illustration of the same malady and called it "pemphigus," and the authority whom we now criticise, expressly states that it is curable by the remedy which usually cures pemphigus. Why then burden and confuse the practitioner by attempting to perpetuate the word hydroa in connection with such a malady?

NOTICES.

The Annual General Meeting of the Members of the Polyclinic will be held in the College on Tuesday, March 31, 1903, at 5.30 p.m. Sir William Broadbent, Bart., K.C.V.O., President of the College, has kindly promised to be present and to take the chair. The Annual Report and Balance Sheet will be submitted, and vacancies on the Council will be filled by the election of new Members. Copies of the Balance Sheet and Report will be ready in a few days. They will be posted to Members on an early date.

* * *

A list of Lectures to be delivered during April will be found in the advertisement columns of our present number. Arrangements for May, June, and July are in a forward condition, and Captain Pinch hopes very shortly to issue a card giving a complete register of the course for these months.

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The College will be closed on Good Friday, April 10, and also on Easter Monday, April 13.

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Donations of books for the Library should be addressed to the Hon. Librarian, 22, Chenies Street, W.C.

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Annual Subscriptions for the current year are now due, and Members who have not yet remitted the amount are requested to do so at their earliest convenience.

SELECTIONS FROM LECTURES DELIVERED IN THE COLLEGE.

ON AURAL VERTIGO.

BY J. HUGHLINGS JACKSON, LL.D., F.R.S.

[*Abstract.*]

Giddiness, advanced by a patient as a cause for complaint, does not always mean one and the same thing. Different people use the word in different senses. It is necessary, therefore, to request the patient to describe exactly the sensation which he names giddiness. There are at least two distinct forms. In one, objects in the external world, which are really at rest, appear to move. In the other, the disorderly movement seems to the patient to affect, and sometimes actually does affect, his own body. The appearance of movement in stationary bodies must, as a sensation, depend upon movements of the patient's eyes, occurring involuntarily and leading to erroneous visual judgments. Where the mental impression is that of movement of the patient's own body, the explanation is not so obvious. It is, for example, difficult to associate such a symptom as a sense of "jumping out of myself" with a disturbance of any known physiological mechanism. But such complaints are not to be lightly dismissed merely because their interpretation is not close to the surface.

Besides aural vertigo, other groups of cases have been more or less confidently recognised and named. The best known of these are ocular vertigo, epileptic vertigo, and gastric vertigo.

The ocular form occurs in connection with cases of ocular paralysis. In such circumstances, of course, diplopia is a common event. But the giddiness is not due to the diplopia, as it persists even when the sound eye is covered. It arises rather in this fashion: The paralysis entails an unusual effort on the part of the central nervous system to produce the desired movement. A mental judgment is formed, not by the amount of movement produced, but by the nervous energy expended. Thus in paralysis, say of the external rectus muscle of the right eyeball, objects to the right look further out than they really are, because there is an unusual effort on the part of the brain to turn the eyes to the right. The same principle is true of other ocular palsies. The patient judges the positions of objects incorrectly. His judgment, as directed by the sense of sight, tells him that objects are in certain positions, where, as a fact, his feet fail to find them.

Epileptic vertigo is a term which recognises the fact that it is not always possible to distinguish off-hand between aural vertigo and epilepsy. A patient has an attack of giddiness, falls to the ground, and becomes unconscious. Neither at the time of such an occurrence, nor on the return of consciousness, can it be said that a confident diagnosis is possible in such a case. After a time, during which the attacks of unconsciousness cease to recur, and vertigo alone persists, the condition may be recognised as one, not of epilepsy, but of aural vertigo.

A number of cases named gastric vertigo have been recorded by Trousseau and others. Probably many which are labelled with this name are really instances of aural vertigo. It is not denied that such a condition as gastric vertigo exists; there is, indeed, very high authority for asserting its existence.

Aural vertigo has three separate symptom groups, viz., (1) *auditory*, such as deafness, tinnitus, &c.; (2) *locomotor*, in the form of reeling, &c., and associated with abnormal ocular movements (abnormal at least in the particular circumstances of the case) which lead to erroneous visual judgments; (3) *vital*, meaning by this term, disturbances of the great centres which regulate digestion, circulation and respiration; such symptoms as prostration, a sense of impending dissolution, nausea, vomiting, &c., are the result.

These symptom groups rest on a definite anatomical and physiological basis. In this may be clearly traced two distinct mechanisms, which correspond respectively to the auditory and motor disturbances of aural vertigo. The so-called "vital" disturbances must have their own relationship to some part of the nervous system, but the precise definition of this part cannot be given. Auditory symptoms are associated with the apparatus which commences at the cochlea, is continued through the cochlear (the true auditory) nerve to the nuclear region in the medulla, and is completed by the supranuclear connection terminating in the auditory centre in the cerebral cortex. The motor evidences come from disturbance in a path which has its origin in the semicircular canals (the "non-hearing" part of the vestibule), travels through the vestibular nerve to a nuclear region in the medulla, and from this is continued upwards to terminate in the cerebellum. The different planes and directions in which the semicircular canals are disposed correspond to different sets of bodily movements, and a study of the disturbed movements in aural vertigo is of prime importance in reference to a diagnosis of the site of the lesion. The third symptom group, sickness, faintness, &c., suggests that from the organ in the petrous bone named the internal ear, a third set of fibres proceeds to the so-called "vital" centres in the medulla, but these have not been anatomically demonstrated. The physiological parallel to the three symptom groups of aural vertigo is to be found in dancing to music. There is appreciation of sound (cochlear or auditory apparatus), direction of movement (semicircular canal apparatus), and the excitation of emotion, this last being primarily an affair of the medulla. It is disturbance of the mechanisms controlling these activities which produces the symptoms of aural vertigo.

Dr. Hughlings Jackson related a number of cases to show that in some instances aural vertigo may develop acutely under the stimulus of a sudden loud noise; also examples both of severe and non-severe chronic forms of the disease.

In reference to treatment, the first thing to do is to put the auditory apparatus in good condition, if this is possible. Too rigid a diet is not wise. It has been observed, in some cases, that a patient subject to aural vertigo may have an attack if he accidentally misses a meal. Trousseau also noted that the taking of a little food will sometimes immediately stop the giddiness. Such a result cannot be due to the nutritive effect of the food, but probably depends upon a determination of blood to the abdominal organs and a consequent alteration in other parts of the body, including the brain and sense organs. The moral is, that sufferers from aural vertigo—and the same is true of migraine—should have a diet, generous rather than otherwise, and should take food at regular intervals. If the auditory apparatus cannot be put into good order, the remaining indication is to fortify the central nervous apparatus against the irritation which results from disease in the peripheral structures. The nervous centres, it must be remembered, are structurally sound; they are merely disturbed as a consequence of peripheral irritation. Quinine in large doses has been advised, but it is better to begin with quite small doses, which may be increased if necessary. Aural vertigo is not often associated with syphilis, but if this disease were suspected it would be right to order mercurial treatment.

NOTE.

We are indebted to Dr. Hughlings Jackson for the following quotations as bearing on that part of his lecture which deals with the relationship between "erroneous projection" and visual judgments:—

"Of all exaggeration in landscape-painting the commonest is exaggeration of height in high objects, and consequently of steepness in their sloping lines. This is universal with all landscape-painters, and I believe the landscape-painter never lived who did not habitually exaggerate height and steepness. But no one ever exaggerates the length of a horizontal line. If, for instance, a mountain to be true ought to be two feet high and six feet long in a picture, the chances are that the painter will make it about three feet high and five feet long. Turner exaggerated in this way habitually; but there is no instance in which he exaggerated the proportionate length of a horizontal line. Our most rigid topographical painters may ultimately, if they work in entire submission to photography and with its continual guidance, come to produce unexaggerated work; but if ever such work shall be exhibited no one will believe it to be true, because it will fail to give the *impression* of steepness and height that Nature produces on her own scale, with exactly the same lines."—"Thoughts about Art," by P. G. Hamerton, p. 24.

"Illusions of *Form.*—Draw a perfect square. Notice that it looks higher than it is broad. The reason is that the muscles around the eyes can move them out and in more easily than they can move them up and down. Since it requires more *effort* to look up and down the square than to look across it, the *distance* up and down is taken to be greater.

"Draw a number of 'squares' which are a little lower than they are broad. Note which of them looks to be exactly right, a real square. Measure the height and subtract it from the breadth. The result gives you the amount of the illusion."—"Titchener's Primer of Psychology," pp. 115, 116.

ON A CASE OF POST-NEURITIC OPTIC ATROPHY IN EARLY LIFE.

BY C. O. HAWTHORNE, M.D., M.R.C.P.

GENTLEMEN,—The facts of this case, so far as the condition of the visual apparatus is concerned, are readily recognised. To find their correct interpretation is a much less easy task. The patient's sight has been failing for a period of fifteen months, and his visual acuity is now reduced to a very low level. The immediate cause of this is seen by the ophthalmoscope to be atrophy of each optic nerve. Further, the opthalmoscopic appearances compel the inference that the nerve atrophy has resulted from an attack of double optic neuritis. Not only are the discs extremely white, but each shows a "woolly" edge, and along the course of the retinal vessels are "white lines"—facts which prove a former condition of inflammation accompanied by exudation. There can therefore be no doubt that had the lad been seen at an earlier stage, the ophthalmoscope would have shown a double optic neuritis. It is equally certain that the present condition—double optic atrophy—is the outcome and consequence of the neuritis. These conclusions are in themselves sufficiently grave. They mean a gross organic change in the optic nerve-fibres, and a change, too, which carries the risk of a still further advance. Hence the future of the boy in regard to his vision does not offer a very cheerful prospect. The question has yet to be faced—what is the explanation of the development of a double optic neuritis in a lad, 13 years of age, and having little complaint to make except of defective vision? The causes of double optic neuritis are numerous, but in the present case they can all be certainly excluded, with one possible exception. That exception is an intracranial lesion. Such a lesion is the one which a double optic neuritis immediately suggests. The difficulty is, to picture the existence of disease within the skull, sufficiently serious to produce permanent damage to the optic nerves, and yet at the same time failing to cause any other symptoms of an acute or otherwise pronounced character. The patient, it is to be noted, is a lively, intelligent, well-nourished lad. He has at no time been confined to bed, or, apart from his sight, been regarded as seriously ill by his friends. So far as medical advice has been taken it has been sought for in reference solely to the lad's defective sight. That symptom, as already remarked, is dependent on the consequences of a double optic neuritis, and this, in the absence of any other explanation, is suggestive of intracranial disease. It is therefore necessary to scrutinise the lad's history, and to thoroughly examine the whole of his nervous apparatus, with a view to discover anything which may confirm the suspicion of intracranial disease necessarily arising out of the fact of double post-neuritic optic atrophy.

The history is quite free from the record of any definite illness, other than those common in infancy and the early years of life. Some eight years ago, however, the patient is said to have fallen from a horizontal bar and to have hurt his head. Immediately after this accident he is reported to have had a "mist before his eyes," and for the following fourteen days to have declined to take part in games, because "he did not see right." As all this occurred eight years or more ago, it can hardly be supposed to have any direct connection with his present complaint. He completely recovered from the accident and remained in robust health until the summer of 1901. He then began to be subject to "nervous attacks." These he describes as consisting of a sense of numbness, which, commencing in his left hand, passed along his arm, afterwards reaching both his head and left leg. At the same time he experienced zig-zag flashes of light before his eyes, and often headache. He also says that after each attack his left leg and arm were "useless" for some hours. Sometimes, also, he was compelled to go to bed, and on two or three occasions was partially unconscious, and occasionally he vomited. It is impossible to be sure whether the limbs were or were not convulsed at any time, but taking the statements as they are made, they obviously suggest something of the nature of Jacksonian epilepsy, and, consequently, a focal brain lesion. This suggestion is weakened, at least in some measure, by the lad's admission that whilst the attacks were for the most part on the left side, there were instances in which the numbness and subsequent weakness affected and were confined to the right limbs. It is to be noted also that there have been no attacks during the last two months. For the present it is sufficient to observe that this history strengthens the theory suggested on the basis of the existence of an otherwise unexplained double optic neuritis, namely, that the patient is the subject of intracranial disease. Taking next the result of an examination of the nervous system it has to be said that this is entirely negative, excepting only that the knee-jerks are unduly energetic and prompt. This, however, is important, as certain intracranial lesions are attended with exaggeration of the knee-jerks. Thus it may be claimed that the diagnosis above suggested receives a further measure of support from the examination of the nervous system. The argument, presented in brief, is, that double optic neuritis, a history of "attacks" characterised, *inter alia*, by numbness in the limbs and occasional headache and vomiting, and the existing fact of heightened activity of the knee-jerks, form a body of facts on which a diagnosis of intracranial disease may be safely rested. The important inference follows, that such disease may express itself severely as regards the optic nerves, and only slightly in reference to other parts, and that through an attack of double optic neuritis, dependent on brain disease and terminating in optic atrophy and serious loss of sight, the general health of the patient may remain almost unimpaired. The moral attached to this is, that the existence of any symptoms, however slight, of possibly cerebral origin, demands an examination by the ophthalmoscope. For, as is well known, the presence of optic neuritis is entirely compatible with perfectly good vision. It is not so much in the acute stage of the inflammation that the sight suffers, but rather when the nerve-fibres atrophy under the pressure of the newly-organised connective tissue. In the present case the probability is that optic neuritis was in existence for some considerable time before the lad began to complain of failing vision. The slight "nervous attacks" were observed several months before that event. Whether the serious significance of these was, or was not, appreciated, would depend very largely upon the use or neglect of ophthalmoscopic examination.

Accepting the presumption that the case is one of intracranial disease, it has next to be considered what is the nature of that disease. Tumour, and meningitis, are obvious suggestions. Each is well known to be a cause of double optic neuritis. Other intracranial events sometimes associated with double optic neuritis or atrophy are abscess, sinus thrombosis, and dropsy of the ventricles. Now as our patient has never suffered from disease of either ear, sinus thrombosis and abscess may be regarded as highly improbable. Occasionally one or other of these conditions does occur apart from suppurative otitis, but there is no hint of either diagnosis in the present case. In a few instances of double optic neuritis or atrophy, dropsy of the ventricles has been reported as the only explanation discovered on autopsy, but such a diagnosis can hardly be hazarded during life apart from obvious evidences of hydrocephalus, and in the present patient there is certainly nothing either in the physical or mental condition to suggest it. There remain tumour and meningitis, and in reference to these there may possibly be room for some difference of opinion. But it may be taken as certain that there has never been meningitis in any such form as the tubercular or other varieties of that disease which are not uncommon in the early years of life and which cause severe, more or less acute, and dangerous symptoms. If the optic neuritis and other facts of the case depend on inflammatory changes in the meninges of the brain, those changes must be of a very insidious and chronic order, and there is no collection of *post-mortem* facts to show that such an explanation may be safely advanced in the present or other similar cases. On the other hand, there is very good evidence indeed that a tumour, or even tumours, may be present within the skull and may only manifest their presence by clinical events, slight in degree and extended over a long period of time. Among these events double optic neuritis may occupy the leading position. It may be the first symptom. It may be the most disastrous one. Other symptoms of varied nature may exist, but of such moderate development that they hardly attract serious attention until failure of sight places an anxious aspect on the case. The facts of the present case exactly adapt themselves to these general statements, and a diagnosis of intracranial tumour must therefore be admitted as at least capable of defence. One or two aspects of the case may be mentioned as offering additional support to that diagnosis. First, there is the degree of the optic neuritis. This has undoubtedly been extreme, as is shown by the completeness of the atrophy of the optic nerves. Now of all the causes of optic neuritis, intracranial tumour is the one which most frequently produces a high grade of inflammation. Hence there is a presumption in the present case in favour of a diagnosis of tumour. Again, the exaggeration of the knee-jerks may be quoted as offering some support to such a theory of the case. Undoubtedly tumours within the skull sometimes produce this condition. This is specially true of growths affecting the cerebellum, but disturbances of the knee-jerks have also been observed with tumours involving the prefrontal lobes. Therefore this symptom may be claimed in support of the diagnosis. It cannot, however, be regarded as of much value in an attempt to localise the site of the tumour. Indeed, there is little or nothing in the case to help in this direction. Optic neuritis gives no suggestion in regard either to the position or size of an intracranial growth. The only symptoms suggestive of a focal lesion are the "numbness" and subsequent "weakness" in the left limbs. These are not very precise, and in the absence of convulsive attacks or paresis as certified by a competent observer, they would hardly justify a definite diagnosis of a focal lesion in the right motor cortex. Further, similar attacks are said to have occurred in the right limbs, and the lad has now been free from all such symptoms during the last two months. In these circumstances operative interference can hardly be proposed. Had the boy been seen when optic neuritis was acute and intense it might have been a fair proposal to trephine the skull, even in the absence of localising symptoms, the object being to lower intracranial pressure and in this way to diminish the severity of the neuritis. But no good result can now follow any such proceeding. The optic nerve-fibres are irretrievably damaged, and there is in this respect but little hope of relief. The probability appears to be that the active phase of the intracranial lesion has in the meanwhile passed. Assuming that the diagnosis of tumour (or tumours) is correct, growth has presumably ceased, and the vascularity and irritation which attend upon a growing tumour have abated. The boy's future must be adjusted on the supposition that his sight is permanently impaired, but otherwise he has a reasonable prospect of good health and long life. A chance of the cerebral mischief again becoming active must be allowed, but this is not a necessary prospect. A patient blind from optic atrophy, the result of an intracranial tumour, may live for many years, to die in the end of an entirely different disease. The age of the patient may be held to suggest that any tumour present in his skull is probably tubercular. Hence it is reasonable, with a view to prevent further developments, to take steps to maintain the general health and vigour by suitable dietetic and hygienic measures, and to prescribe at times such medicines as cod-liver oil, syrup of iodide of iron, &c.

The case, in summary, may be presented as one of *double optic atrophy* (*post-neuritic*) *associated with quasi-epileptic seizures* (*extending over a period of fifteen months*) *and exaggerated knee-jerks, in an otherwise healthy lad without history or evidence of tubercular or syphilitic incidents. Cessation of nervous attacks, and general health unimpaired, but visual acuity seriously, and presumably permanently, impaired.*

A note may be taken of the facts that the lad's history includes a blow on the head. This was long antecedent to his loss of sight and probably cannot be held responsible for his present condition. It has this importance, that the development of an intracranial tumour has sometimes been known to follow violence applied to the skull.

Heberden's Nodes.—The following is Heberden's brief description of the *digitorum nodi* which are now generally known by his name : "What are those little knobs about the size of a small pea which are frequently seen upon the fingers, particularly a little below the top near the joint? They have no connection with the gout, being found in persons who never had it; they continue for life; and being hardly ever attended with pain or disposed to become sores, are rather unsightly than inconvenient, though they must be some little hindrance to the free use of the fingers."

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On Arthritis.—"When, therefore, the humour is situated in the joints of the feet only, the complaint is called podagra ; but when the cause is diffused all over the body we commonly call it arthritis, in which the vertebræ, scapulæ, jaws and every other joint are attacked by the disease. . . . When the disease is protracted in the joints, the humours become thick and viscid, so as to form what we call tophi or chalk stones."—" Paulus Ægineta " (Adams's Translation).

MEDICAL NOTES IN CEYLON.

BY JONATHAN HUTCHINSON, F.R.S.

THE PRIORY, COLOMBO.
January 20, 1903.

ONE of the main objects of interest to the medical pathologist in a visit to Ceylon is to see the disease there known as Parangi. This disease has now been made well-known to the profession by the publication by the New Sydenham Society of the excellent series of illustrations collected by Sir William Kynsey during the years that he held the post of Government medical adviser in the island. As most know, this malady is identical with what is known as Yaws in the West Indies and Thaku in the Fiji Islands. It occurs also in many other countries where it is less definitely recognised. It is important to remember that the disease is really one and the same in all these various places, because from this it follows that the facts which are proved of one form are equally applicable to the others. The Ceylon word means the foreign disease, and the Cingalese believe that the Portuguese brought it to them.

Now the controversy as to parangi is as to whether it is, or is not, identical with syphilis, being modified only by race, climate and idiosyncrasy. My own creed on this point has been repeatedly expressed, and is probably known to most who take an interest in the subject. I came to Ceylon eager to see the disease, but not with any expectation that I might be shown anything which could possibly force me to change my opinion. It is, indeed, not a question of external phenomena, but of the general facts, and the latter have for long been in my possession.

One of the curious facts as to parangi in Ceylon is that it is claimed that it occurs only in the country villages, whereas syphilis is met with chiefly in the towns ; also that the one disease supplants the other. This was told me by Sir William Kynsey, and it has been confirmed by numerous medical men on the spot. The district surrounding a little town known as Kurengalle, not far from Kandy, is one of those in which Parangi is thought to be most common, and it had been arranged through Sir William's kind offices that I should visit this place, and that cases should be collected there for my inspection. On reaching Colombo, however, I found that, from fear of fever now rife there, I was not to be permitted to visit the town named, and the cases which had been collected had been brought down to the Colombo General Hospital. This saved me a troublesome journey, and probably a not insignificant risk. So on the morning of Monday, January 19, I went with my son Roger to see the cases. Our kind companions and conductors were Dr. Chalmers, of the Ceylon Medical College, the Hon. Dr. Rockwood, and Dr. Da Silva, and we were joined and assisted by several residents. We saw and took notes of eleven cases, in about half of which the frambœsial type of the eruption was well marked. The others had been diagnosed as parangi, but under treatment the eruption had changed or disappeared. One of the cases, a lad of 18, certainly showed a form of eruption which I had never seen before, and which even surpassed in its papillomatous character any delineation of either yaws or parangi that has ever been shown me. The papillomatous patches were large, but not very numerous, and they were free from any tendency to ulcerate and crust, being dryish and almost clean.

In this case the primary sore had been on the foot, and a round parchment-like scar now occupied its site. The glands in both groins were much enlarged, without tendency to suppurate. There were also enlarged glands in the armpits. There were scars on various parts of the body where papillomatous patches had healed. The palms and soles were covered with small circular peeling patches, many of which had become confluent. The patient did not complain of sore throat, nor were his tonsils obviously inflamed, but there was a quite definite white-edged ulcer on each.

Concerning the other cases I must be brief. None were so well characterised as the above, but most of them showed conditions exactly similar to those so well exhibited in Sir W. Kynsey's plates.[1] In nearly all, the palms and soles were definitely affected. On these parts the eruption usually took the form of round patches, each the size of a shilling, or smaller, and from which the epidermis had peeled. In only one case (on the soles) did we see any tendency to the production of papillomatous fungation. One of the patients showed circular patches denuded of epithelium over the surface of his tongue. In three at least we established beyond doubt the fact that there were sores on the tonsils. These sores were superficial and filmy, and were exactly such as we constantly see in mild syphilis. Dr. Chalmers and other observers saw these sores, and, as they constitute a very important item of evidence, they were examined with much care.

All the patients in this group (the secondary stage of parangi) had had the primary sore on the leg or ankle, and in most a large scar remained, and the inguinal glands were still enlarged. It was impossible to fix exact dates as to the interval between the sore and the eruption, for it was often the fact that an ulcer caused by some injury had preceded the infection by some weeks or even months.

I shall not be dealing fairly with my readers if I do not here say explicitly that I was not shown any case which in my judgment was anything else than syphilis. I must add some brief particulars respecting two of the cases which had been brought from Kurengalle. A man of 28, in whom the primary sore on his ankle had existed ten months and was still present, showed granulomata breaking through the thick epidermis of his soles. He had also an ulcer with elevated edges on one nostril. The frambœsiform eruption had, with but few small exceptions, entirely left his trunk and limbs, but its place had been taken by a symmetrical macular eruption which covered his trunk with small inconspicuous roundish blotches. This eruption showed no tendency to become granulomatous, and it exactly resembled what we frequently see as a recurrence after a too early cessation of mercury in the treatment of syphilis. It reminded me strongly of Charlom's case, in which, a year after experimental yaws, he inoculated syphilis and produced what he considered a syphilitic eruption. Had this man been so inoculated, it might be claimed as proof that syphilis may follow yaws.

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[1] See New Sydenham Society's Atlas.

In another case a few scars like those of rupia had been left where granulomata had disappeared, yet the remaining eruption was characteristic. In the case of a boy aged 14, in the eleventh month of his malady, and whose soles and palms were severely affected, the eruption was abundant, but was for the most part macular and papular. On the lower extremities it took the form of discrete papules almost shotty to the touch. Some of these had faded and left small whitish scars. He had mucous patches on his lips, and sores at the angles of his mouth.

What I have written above concerns the secondary stage of parangi, that of eruption. On all hands it is admitted that this eruption is transitory. Some think that mercury helps its disappearance, others not. Most of the cases seen had had some treatment. None, however, had been definitely under the influence of mercury.

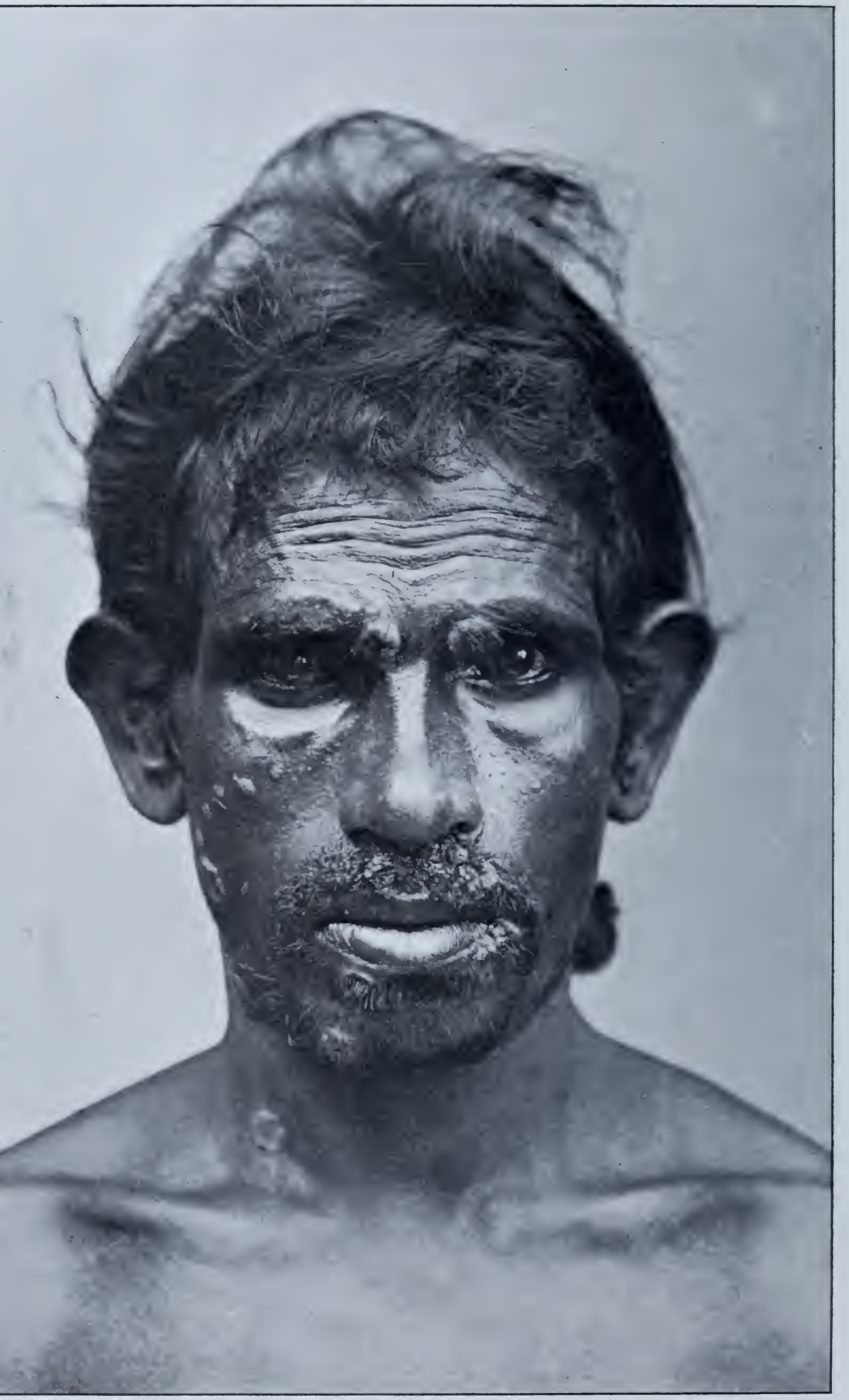
A number of other cases were shown us which were in the tertiary stage. In these, the diagnosis of parangi rested with the original observer some years ago, since all traces of the eruption had long disappeared. One of these had nodes on the tibiæ, several had phalangeal periostitis (the dactylitis of authors), and two showed large deep scars attached to bone and apparently the result of big ulcerated gummata. One of these might have sat for one of Sir W. Kynsey's illustrations, so exactly similar were the conditions.

Kandy, Ceylon,

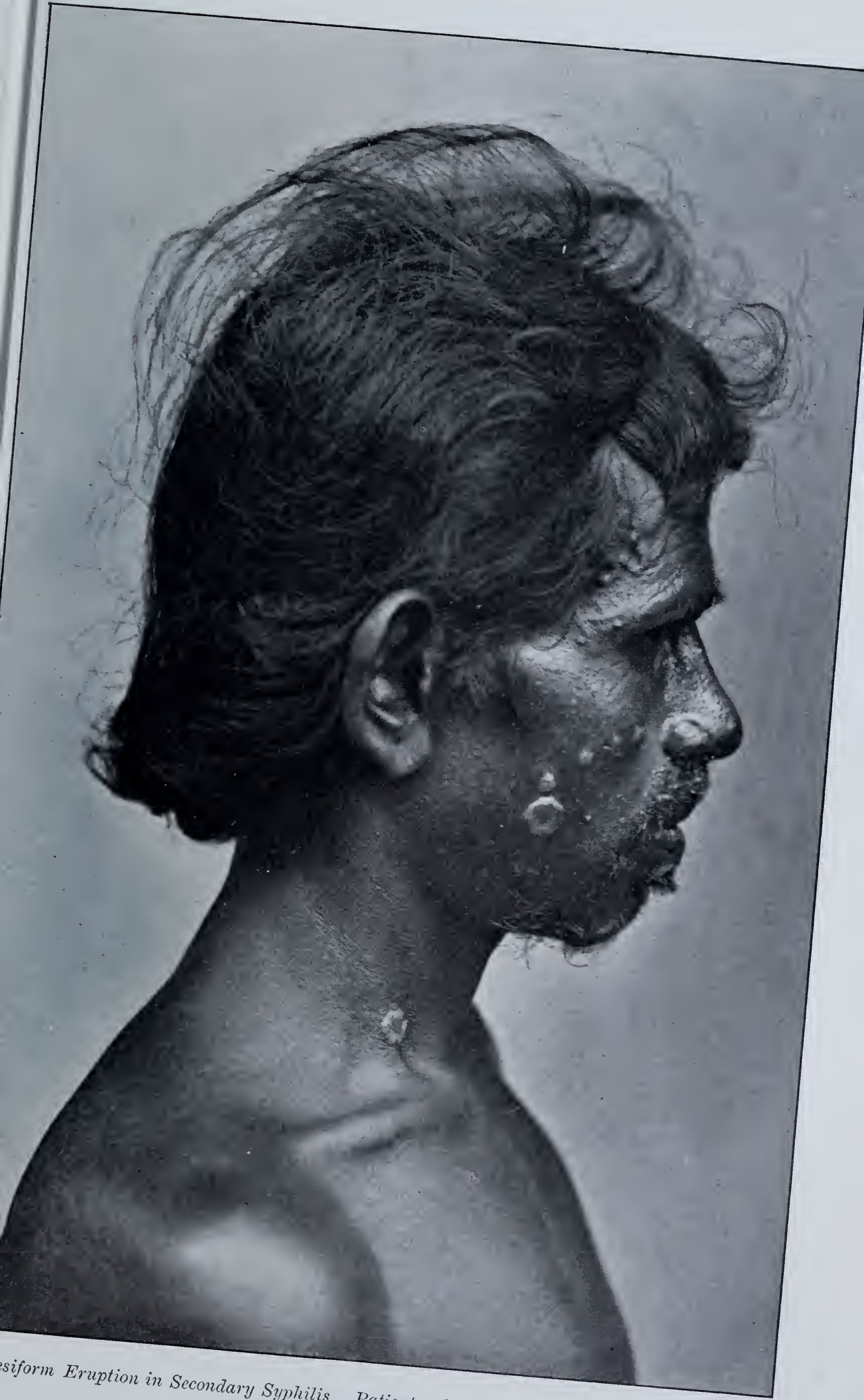
January 22, 1903.

We have this morning visited the General Hospital of Kandy. We were taken there by Dr. Craib, the medical officer of the district, and by him introduced to Dr. Modder, the resident medical officer, and to both of these gentlemen I owe my best thanks. My first enquiry was, of course, "Can you show us any cases of parangi?" Dr. Modder's reply was, "No, we rarely see parangi in Kandy. When Sir William Kynsey wrote to me to get him some material for microscopic examination, I had to send to Kurengalle for what I sent him. It is a disease of the country districts, not of the towns." "Can you then show me cases of secondary syphilis?" "Oh, yes," was the reply, and amongst the patients produced was one of extreme interest.

This patient was an adult man, whose forehead and face showed numerous groups of well-characterised frambœsiform eruption in its later stage, in which the papillomata at the edges of the sore are more elevated than at the centre. I need not describe the arrangement of the eruption, since the accompanying illustrations will convey a better realisation than words could give. "Why do you not call this a case of parangi?" I asked, "it is exactly like those from Kurengalle which I saw under that name at Colombo." "But, you see," was Dr. Modder's reply, "his is a clear case of syphilis. The man admits exposure, and he has had a sore on his penis, of which you may see the remains." I understood my candid and most courteous companion to fully admit that the type of eruption was



bœsiform Eruption in Secondary Syphilis. *Patient a Cingalese.* (*Mr. Jonathan Hutchinson.*)



esiform Eruption in Secondary Syphilis. Patient a Cingalese. (Mr. Jonathan Hutchinson.)

not to be distinguished from that of parangi, but he insisted that in the latter disease the primary sore was almost always on the foot, and there was never any history as to how it had been contracted, and that there was never any sore throat. In reply to the latter part of the statement I mentioned that at Colombo in several cases produced to us as parangi we had established the fact that there were present small filmy ulcers on both tonsils, and in another that there were very characteristic round or concentric patches on the tongue (true secondary syphilitic eruption). Of course, I pointed out, I could not admit difference in the location of the chancre as having any bearing upon the identity or non-identity of the two diseases, adding that my contention was that what was called parangi was simply non-venereal syphilis, the poison being introduced by flies or some other mode of infection of accidental sores on the foot or elsewhere. My companion, I think, assented to this line of argument, and he kindly and willingly agreed to my proposal to have the man photographed. In order to complete the case I must add the following facts. The man said that it was a year since he had contracted the disease, and it seemed probable that he had not had much treatment until he applied to the hospital a month ago. He had at one time had an eruption on the body, but it had now disappeared without leaving a trace. He still had condylomata (dryish and warty) around his anus, and sores on his tongue and tonsils. The latter were filmy and white-edged.

With the exception of this case, I did not see any of importance in reference to the syphilis of the locality. Dr. Modder told me that they scarcely ever saw primary sores in women.

Regarding the above case I claim that it proves beyond a doubt that in a case of unquestionable syphilis in a Cingalese there may be present as a remnant of the secondary eruptions, papillary and granulomatous patches exactly like those formerly claimed as distinctive of "parangi." I enquired of Dr. Modder whether goitre was common in Kandy "No, very rare." "As to scirrhus of the female breast?" "I have excised the breast for cancer only once during the last four years." "As to beri beri?" "We do not know the disease in Ceylon. Once we thought we had cases, but they were proved to be ankylostomiasis." "Enteric fever?" "Not common. "Any form of local disease?" "No." "Dysentery?" "Occasional, but not severe, nor very common." Elephantiasis I forgot to ask about, but I was not shown a single case, and it was not mentioned when I asked what conditions chiefly found their way into the operation theatre. The reply to this question was: "Amputations for accidents, &c., but by far our most common operation is removal of the prepuce in adults. They neglect cleanliness as regards this part, and are very liable to suffer from chronic irritation and swelling. Only the other day I had to remove the prepuce for epithelial cancer." What a blessing for humanity it would have been, I reflected, if the Indo-European race, as well as the Semitic, could have had its enlightened priest to inculcate and enforce the circumcision of infants.

The Kandy Hospital is by very far the most beautifully-placed institution of the kind that I have ever seen, nor can I imagine that any can surpass it. It occupies a very large undulating garden, and consists of separate low blocks of inconspicuous white buildings with red-tiled roofs, connected by pillared corridors, and shaded by palms and countless other beautiful trees. Every block has its verandah in which the patients can sit. All that we saw was in the perfection of cleanliness and good order, and all the patients looked as happy and contented as, considering their several lots, could possibly be expected.

I must not neglect to add that we saw four cases of leprosy in this hospital. As I expect to have the opportunity of seeing three hundred next Sunday, there is no object in attempting to record details of individual cases. There were, however, some features of interest in one or two of those seen this morning. It has long been a feature of interest in the disease which we know under the name of leprosy, that it has no degrees of severity and apparently no abortive cases. Tuberculosis in this respect offers a strong contrast. Many persons are threatened with tuberculosis of the lungs for one who develops fatal phthisis. So also we have many different forms of local tuberculosis—joint or bone disease, gland disease, lupus, lichen scrofulosorum, &c., &c. — in which the disease remains restricted more or less to one tissue, and from which recovery is easily possible. It has been doubted whether leprosy—which in so many of its features resembles tuberculosis—ever displays these local or ill-developed forms. Our assumption has been that it always runs its course and fills up the full measure of its phenomena. Many facts, however, which have recently come under my notice incline me to ask whether this assumption has not been made as the result of too hasty observation. It seems quite possible that on closer scrutiny we may find a considerable number of cases of leprosy in which the disease has never developed itself fully. Some of these may have been counted as simply being in an early stage, and may have never afterwards come under the notice of the observer. Some may have never been under skilled observation at all, and in others when the disease was found not to progress the diagnosis may have been changed. A very instructive example of this last was under our scrutiny at the Polyclinic some months ago, in which a very distinguished authority on leprosy (now deceased) had abandoned his own original diagnosis because the changes remained local, but in which, after an interval of many years, we found abundant reason to believe that the first opinion had been the correct one. In this instance the neuritis was confined to one upper extremity; the patient had remained in good health, but had quite recently developed a very definite form of leprosic cyclo-iritis. As a matter of fact, our clinical knowledge of leprosy has been too exclusively based either upon fragmentary observations or upon those made solely on severe and well-characterised cases in a late stage of the disease. Were it more exact and detailed the outlines of the picture might become, perhaps, less strongly marked, but would be more truthful. We should lose a diagram and gain a portrait.

The case which has suggested these remarks is that of one of the two which I saw in the Kandy Hospital. A woman, aged 25, who had lost her eyebrows, had some remains of tubercles on her nose and lips, and had thickened lobules of her ears. Her ulnar nerves were also enlarged. She had suffered for twelve years, but she had never had any definite changes on her extremities or trunk. The skin of all these parts was quite clean, and her digits not in the least swollen. When we asked her as to any numbness in her hands, she at once pointed to her little fingers, but the degree of anæsthesia was only very slight. We thought that the interossei were somewhat wasted, and that the hollow between the thumb and forefinger was abnormal, but these were only matters of degree about which differences of opinion might have been justified. It will be seen that the case was of the mixed type, neuritic and dermato-tubercular, and that although it had existed so many years it had not proved aggressive.

All the three lepers whom we saw here were probably *de novo* cases, and I have the authority of Dr. Meier, the able superintendent of the Leper Asylum, for stating that his experience is quite in accord with this observation. None of them had had leper relatives, and none had any knowledge of having been exposed to risk of contagion. All had used salted fish with rice as an ordinary article of food. Dr. Modder on this point told me, "You may take it for granted that all the poorer population of Ceylon eat salt fish largely, and that much of it is in a very bad condition. This is true of the inland districts as well as of the coast, with the sole difference that inland they must take what they can get and on the coast they have more choice."

There is here in Kandy, fifty miles from the coast and near 2,000 feet above sea level, a street which I am told stinks from end to end of the salt fish which is exposed for sale. It is a curious fact that although Ceylon has such an extensive sea board, it cannot supply itself with fish, but imports enormous quantities from the very home of leprosy, the Malabar coast of India. Just in the same way I found in South Africa that Mauritius imported salt fish from Cape Town. Some years ago the Ceylon Government attempted to establish factories of its own in order to supply a sound article. After a considerable expenditure of money, however, the well-intentioned plan failed, for the simple but sufficient reason that the fish would not come to be caught.

The import of salted fish from India last year was 215,000 cwts. In addition to this 70,000 cwts. were imported from the Maldives, but almost the whole of this was in the probably harmless state known as Maldive fish—as dry and hard as wood and used only for curries. Of this kind a quite odourless specimen has been in the Polyclinic museum some years and is as sound as ever. It was given me ten years ago by the Hon. Dr. Rockwood.

THE VALUE OF CLINICAL STUDY.—"The chief educational interest of clinical work lies in the progressive enlargement of one's knowledge, and in learning the lessons which groups of cases teach us, irrespective of whether the lessons are or are not in accordance with preconceived opinions and former teaching."—Dr. Bristowe.

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THE VALUE OF LECTURES.—"Lectures depend entirely for their value upon the manner in which they are given. It is not the matter, it is not the subject, so much as the man."—Faraday.

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A CLINICAL MOTTO.—"This Continuance of Medicinal History I understand neither to be so infinite as to extend to every common case, nor so reserved as to admit none but wonders; for many things are new in the manner which are not new in the kind; and if men will intend to observe, they shall find much worthy to observe."—Lord Bacon.

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LEAD POISONING.—"I have heard house-painters say that that which does them most harm is the paint called *flatting*, which is largely intermixed with turpentine, which passing off in vapour forms a ready medium for the inhalation of lead particles."—Dr. Todd's Lectures on Affections of the Nervous System.

NOTES OF CASES DEMONSTRATED IN THE CONSULTATION THEATRES.

MEDICAL CASES.

BY J. E. SQUIRE, M.D., M.R.C.P.

Tuesday, January 27, 1903.

Dr. Squire showed a number of patients suffering from tubercular pulmonary disease and commented on the clinical lessons which the cases illustrated.

Phthisis Pulmonalis without Obtrusive Symptoms.

The first patient, a man of 35 years, offered an impressive illustration of the rapidity with which a local tubercular process may develop in the lung, and of the possibility of this occurring without symptoms specially suggestive of pulmonary disease. Until two months ago the patient considered he had enjoyed excellent health. He then began to complain of frontal headache, of feverishness, and of attacks of vomiting. These symptoms had been regarded as the results of alcoholic excess, and no suspicion in reference to the lungs had been entertained. Yet physical examination at once detected the evidences of consolidation affecting the whole of the upper left lobe, and the presence of numerous coarse bubbling *râles* showed that extensive softening had already taken place. Here then was advanced pulmonary disease without any symptoms distinctly suggesting the presence of pathological disturbance in the respiratory apparatus. Even cough was not included in the patient's complaint, and was only admitted under the pressure of cross-examination. The clinical lesson is a trite one. It is the necessity for thoroughness in physical examination. Our mistakes result, not so much from ignorance, as from want of care and thoroughness in investigation.

Tuberculosis and the Rate of the Pulse.

In a second patient, a lad of 19 years, there had been active disease in the left apex following an attack of hæmoptysis, and the local signs, as well as the improved general condition, now indicate arrest of the tubercular process. It was remarked in the commentary on this case that the patient's pulse was disposed to be rapid, ranging from 80 to 100, and that such a condition is not infrequent, not only in those suffering from actual tubercular disease, but also in those who may reasonably be regarded as having a more or less pronounced tendency to such disease. A degree of instability both of pulse and temperature belongs, it may be said, to patients of this order. Not that every patient whose pulse is readily disturbed, as, for example, when undergoing medical examination for life insurance, is to be suspected as a probable victim of phthisis pulmonalis. But the fact of unduly rapid pulse, even in the circumstances just suggested, is sufficient to make the scrutiny of the patient a somewhat critical one, and to suggest to the examiner a very careful observation of the physical facts regarding the condition of the chest, and of the patient's height and weight and the proportion of the one to the other.

The Clinical Relationship of the Thoracic Viscera.

The close anatomical and physiological association between the heart and lungs has its pathological parallel. Thus disease which commences in one may extend to the other as a result of contiguity. An inflammation of the pleura, for example, may pass on to and involve the neighbouring pericardium. Similarly, the disturbances of function due to primary disease of one organ may have secondary consequences in reference to the structure or function of another and related organ, as when mitral regurgitation leads to congestion of the lungs, or pulmonary emphysema to dilatation of the right ventricle. In addition, it has to be noted that in some instances the secondary consequences become more prominent than the symptoms of the primary disease, and as a result suspicion is apt to be turned in the wrong direction. A fibroid change in the lung may, for example, produce little or no discomfort, whilst the symptoms of bronchiectasis, resulting from the bronchial dilatation caused by the shrinking of the newly-formed fibrous tissue, will be commanding and urgent. A similar state of matters may exist in reference to physical signs. The most obtrusive evidences may be those of emphysema, though the essential underlying condition be that of fibroid phthisis. The moral of all this is, that an opinion in any case of disease within the chest can only be safely established on the facts to be elicited by a careful review of the condition of all the organs. The mere detection of abnormal conditions in one part or another is not sufficient. It is only by a complete survey that a full and true interpretation of these can be obtained.

Phthisis Pulmonalis with Cardiac Murmur.

This case was a practical example of the importance of the principles defined in the above paragraphs. Examination of the patient's chest detected, as the most prominent fact, a loud systolic murmur in the region of the pulmonic cartilage, and there was some displacement of the cardiac impulse upwards and outwards. A diagnosis of stenosis of the pulmonary artery was pointed out as highly improbable. The condition is rare; it is almost always congenital; and the history of the patient usually includes recurring attacks of cyanosis. The site of the murmur necessarily suggested a functional or hæmic origin, but the lad was free from the general evidences of anæmia. Further examination detected evidences of quiescent tubercular disease at the left apex, and this was submitted as the cause both of the murmur and of the cardiac displacement. The shrinking of fibrous tissue in the apex 'of the lung had, it was presumed, dragged the heart somewhat upwards and to the left, and at the same time bent or kinked the pulmonary artery. Hence an obstruction to the even flow of blood through the vessel, and a resulting systolic murmur. In the present instance the cardiac displacement was of slight degree, but fibroid disease in the lung may produce very extreme displacement. The heart may be dragged over into the right chest, or be found beating in the left axilla, or sometimes in even more extraordinary situations. This may be quite compatible with a regular pulse, and with an absence of all symptoms of cardiac distress. The displacement is accomplished so gradually that the various parts have the opportunity to adapt themselves to the new conditions in which they are called upon to work. It is very different when a rapid accumulation of fluid or a sudden rush of air into the pleura takes place. An acute displacement of the heart produced in this way may be attended by urgent symptoms of distress, or even by actual syncope.

BY SEYMOUR TAYLOR, M.D., F.R.C.P.

Tuesday, February 3, 1903.

Enlarged Thyroid with Tachycardia.

THIS patient was an example of Graves' disease without exophthalmos. The right lobe of the thyroid gland was much enlarged, and, indeed, by pressure on the trachea, caused dyspnœa and inspiratory stridor; and the pulse rate was excessive. But the eyeballs were not, nor had they ever been, unduly prominent. The facts were presented as ample for a diagnosis of Graves' disease, and attention was directed to the frequency with which one or other of the prominent symptoms of this condition are absent. As here, there may be no exophthalmos; in other instances there may be no goitre; and in others, again, neither exophthalmos nor goitre may be present. The tachycardia is, however, a constant feature, and possibly may exist without any other obvious fact to indicate its true clinical relationship. In young women, at all events, a persistently rapid pulse ought to suggest the suspicion of Graves' disease. When associated with one or more of such symptoms as loss of flesh, general nervousness, muscular tremor, a tendency to frequent sweatings, attacks of diarrhœa, and excessive menstruation, there can be no doubt of the diagnosis.

In addition to the absence of exophthalmos, a noteworthy feature of the case was the unilateral character of the goitre. The enlargement was confined entirely to the right lobe. It is common to find that one side of the gland is more affected than the other, but a purely unilateral hypertrophy is a somewhat rare event. There are, however, precedents for it, and occasionally a case occurs in which the exophthalmos is found on one side.

Dr. Seymour Taylor discussed the treatment of the case and advised careful diet, belladonna, arsenic, and these failing, extract of thyroid gland. Referring to the popular view that goitre usually means some degree of mental defect in its victims, he quoted his experience in opposition to this statement; more or less mental feebleness is, however, not infrequent in the children of goitrous parents.

Mitral Disease in Early Life.

This patient was a girl of 13 years with evidences of mitral obstruction and regurgitation. There was a family history of rheumatism, but no personal rheumatic incidents. Dr. Taylor referred to the relationship between the age incidence of mitral stenosis and the prognosis of the condition. In early life endocarditis is very apt to affect not merely the curtains of the valves, but also the fibrous ring surrounding the auriculo-ventricular orifice. This ring becomes fixed and rigid, with corresponding narrowing of the orifice. Such a development when the growth of the heart is not yet complete means that the size of the mitral orifice is fixed for the rest of life at a capacity far below the normal. On the other hand, when mitral stenosis occurs after full growth has been reached, the condition, though serious enough in all truth, is much less serious than when the narrowing, with definite fixation of size, affects the auriculo-ventricular orifice of a growing child.

Phthisis Pulmonalis and Pregnancy.

A woman, six months advanced in pregnancy, was found to be the victim of tubercular disease in each lung. A bad prognosis was given, as it is frequently found that after delivery such cases pass rapidly to a fatal termination.

BY C. THEODORE WILLIAMS, M.D., F.R.C.P.

Tuesday, February 10, 1903.

Examples of Chronic Pulmonary Disease.

THE first of these was a man of 30 years, in whose case the diagnosis was debated between phthisis pulmonalis and bronchiectasis. Some three months ago the patient had been told that he was the subject of phthisis, but later events had thrown some doubt on this conclusion. Though he had continued to be troubled with cough and expectoration, he had not sensibly declined either in flesh or strength. Again, the physical signs were restricted to the base of the lung (right). Whilst in this situation there was impaired resonance, this was far removed from absolute dulness, and the respiratory murmur was diminished in volume and without any striking change in quality. Dr. Williams drew attention to these facts as in harmony with bronchiectasis rather than with an extensive area of consolidation due to phthisis pulmonalis. As further supporting this view there were the general appearance of the patient, the abundance and fœtid character of the sputa, and the failure to detect the presence of tubercle bacilli. The expectoration was reported to be frequently blood-stained—a common event in cases of bronchiectasis. No one of these facts in itself could perhaps be successfully urged as establishing a confident diagnosis either in one direction or the other, but together they constitute a body of evidence strongly supporting the theory of bronchiectasis, as opposed to the suggestion of phthisis pulmonalis.

A second patient, a boy of 14 years, was a characteristic example of bronchiectasis. In addition to pronounced physical signs at the base of each lung, there was a history of frequently repeated attacks of bronchitis, and of very abundant sputa—this amounting to as much as 1½ pints daily. Like the first patient, the lad was fairly nourished, and indeed the congested condition of the vessels of his face gave him an appearance of good, or even robust, health. Another interesting feature of his physiognomy was a high degree of clubbing of the finger-tips.

The third case enforced the doctrine that disease commencing at the base of the lung may be tubercular, and that site alone therefore is not sufficient to enable the physician to draw a distinction between bronchiectasis and phthisis pulmonalis. The patient was a woman of 26 years. The history included hæmoptysis on several occasions during the last three years, and much loss of flesh—the last statement being amply confirmed by the woman's appearance. There were physical signs of a cavity in the left base, and tubercle bacilli had been found in the sputa. In many cases of pulmonary tubercle in which the disease commences at the base of the lung there is a preceding history of pleurisy, and this justifies the presumption that the site of election has been determined by imperfect movement and deficient expansion of the lower part of the lung, as the result of pleural adhesion and thickening. In the present case, however, the patient denied all knowledge both of pleurisy and of the symptoms which might result from it.

The last patient of the series was a case of much interest ; a girl of 18 years, she had some months ago been found to be the subject of empyema. For this she was first tapped, and one or two ribs were resected. The discharge of pus continued in spite of this, and further resection operations were undertaken, until in the end practically all the ribs on the right side had been resected (Estlander's operation). As now seen the right chest is collapsed, and there is scarcely any respiratory murmur to be heard over it. For all practical purposes the right lung as a breathing organ is non-existent, and the patient may be described without exaggeration as "living on one lung."

A Case of Thoracic Aneurism.

This was a case in which most of the common symptoms and physical signs of thoracic aneurism were present. Dr. Williams drew attention particularly to a tubular character of the breath sound in the right suprascapular region. He remarked on the value of this in cases of doubtful diagnosis. It is not always present, but when present it is highly suggestive. In some cases it has been the only physical sign of aneurism.

SURGICAL CASES.

BY JONATHAN HUTCHINSON, JUNR., F.R.C.S.

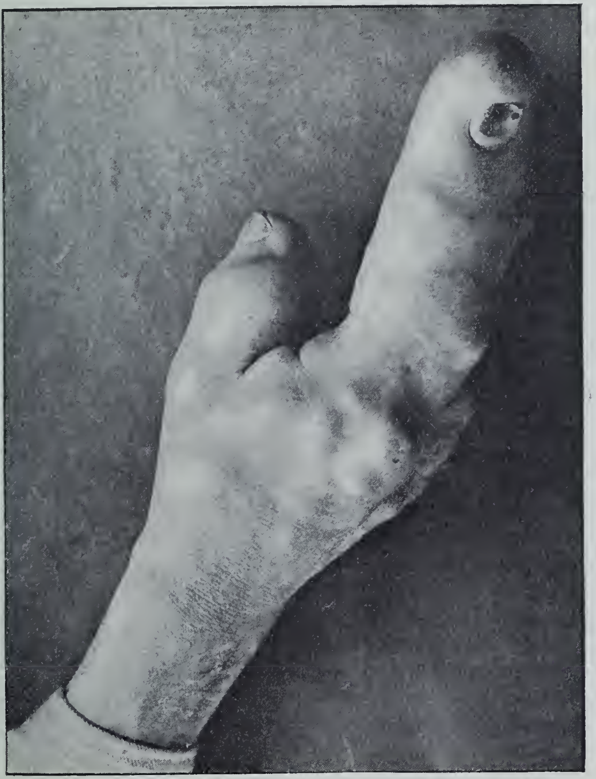
Wednesday, January 14, 1903.

A Tumour in the Acromial Region.

The patient, a man of middle age, complained of a swelling over the prominence of the left shoulder. It had been present for about six months, and was associated with a degree of discomfort and pain in the arm sufficient to prevent the patient lying on his left side. At no time had there been localised tenderness or inflammation, and the man's general health had been quite undisturbed. On examination there was seen over the left acromion a rounded swelling, having a diameter of about one and a half inches. It was manifestly superficial to the deltoid muscle and to the acromion process. The skin over it appeared normal and was not distinctly adherent to the subjacent tumour. There was no central dark spot such as might be present were the swelling a sebaceous cyst, and the circumference was perfectly regular and free from the crenated appearance frequently seen on the margins of lipomata. When palpated the swelling showed a high degree of fluctuation. In addition to sebaceous cyst and lipoma, the diagnoses considered included adventitious bursa and chronic abscess. It appeared that the patient's occupation compelled him to inspect and walk through sewers and other narrow underground passages, and that whilst in these his shoulders frequently came into contact with the walls. Hence there was a possibility that the swelling was the result of repeated slight traumatisms. Mr. Hutchinson inclined to the view that the condition was one of adventitious bursa, possibly produced in the manner just suggested. He recommended that as it caused the patient a good deal of annoyance it should be incised and dissected out. In discussing the case, reference was made to the fact that some fatty tumours give very decided fluctuation—it occasionally happens that operation shows the fat to be in a fluid condition; also to the possibility of chronic inflammation affecting the bursa under the deltoid. This is a much more troublesome condition than that existing in the present patient. It is, as a rule, the result of injury—often comparatively slight injury—in a patient with rheumatic tendencies, and it is attended with much pain on movement of the arm. In its earliest stages it is difficult of diagnosis, and even when more advanced it may be readily mistaken for chronic arthritis affecting the shoulder joint. Should suppuration occur, the condition is almost as serious as a suppuration of the joint itself.

A Case of Hallux Rigidus.

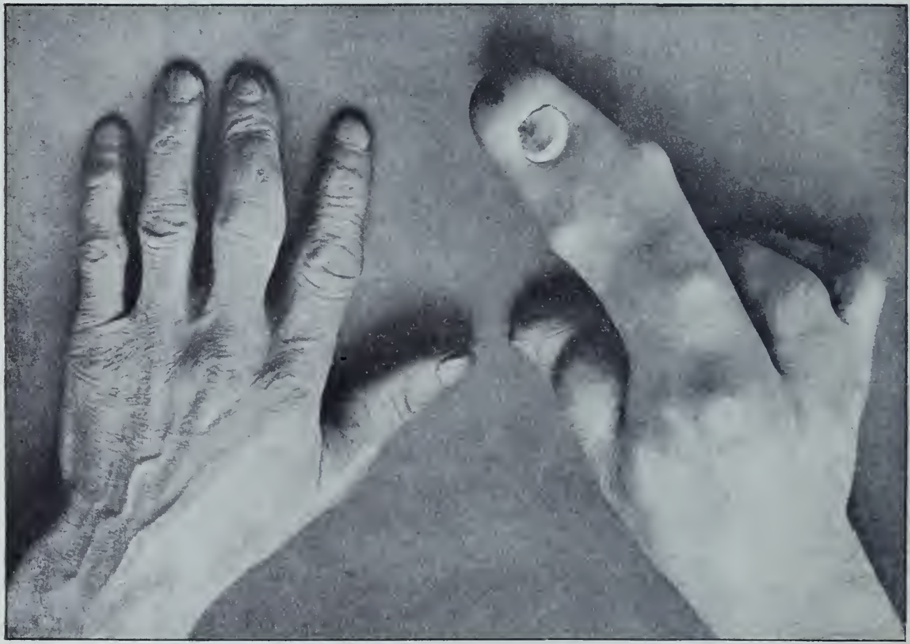
This was the case of a young man who complained of considerable discomfort in his right foot. When at rest he had little or no pain, but standing or walking for a time caused him much suffering. His personal history was as follows:—Three years ago, when he was 17 years of age, he went as an apprentice in an engineering shop, and his work compelled him to be on his feet for many hours daily. Previous to this he had been able to walk long distances, and to play football and other outdoor games. But in the course of a few months he began to be troubled with his present symptoms and found himself compelled to abandon his former activities and to rest his foot whenever opportunity to do so offered itself. This state of matters, in spite of various forms of treatment, had continued to the present date, and the degree of suffering may be estimated by the fact that the patient had expressed the desire to have his toe amputated. Inspection of the feet did not reveal anything conspicuously abnormal. There was perhaps some undue prominence in the neighbourhood of the first metatarso-phalangeal joint on the left side, but the arch of each foot, though hardly to be described as high, was fairly well formed. Thus the case was not one of flat foot. In this connection it was also to be noted that the pain was in the anterior part of the foot rather than in the situations where the pain due to flat foot is common, that is, below the external malleolus and in the neighbourhood of the astragalo-scaphoid joint. Further examination showed that whilst the four outer toes had a normal degree of mobility, the big toe was almost rigid. It could be moved slightly in the direction of flexion, but it was impossible to hyper-extend it. When an attempt to do so was made, the toe was found to be fixed in such a manner that it could not be carried beyond the longitudinal plane of the foot. Not even the slightest degree of hyper-extension could be produced. This was described as the characteristic feature of the case, and taken together with the pain, explains the application to this condition of the name *hallux rigidus dolorosus*. The disease is one which comes on during adolescence in lads whose occupation compels prolonged standing. Its exact pathology is uncertain, but its exciting cause is undoubtedly the strain which is placed upon the feet at a time when the anatomical structures are yet in a somewhat plastic condition. The disease never develops after the age of about 25 years. Its victims, as here, are always young and growing lads. By some it has been taught that the disease is a manifestation of inherited gout. Others regard it as the result of traumatism produced by wearing heavy boots insufficiently long for the foot, the sufferers, perhaps, being the subjects of the arthritic diathesis. A third theory of causation explains hallux rigidus as due to flat foot. This last view Mr. Hutchinson said he was quite unable to accept. It was contradicted by the present case, and by other cases in which, though associated with flat foot, the painful and rigid condition of the toe remained unimproved in spite of the restoration of the plantar arch. In some cases the joints have been examined, and the pathological conditions found have been of the nature of erosion or ulceration of the articular cartilages. The methods of treatment adopted have been both numerous and varied, but they have not been attended with much success. Internal medication, counter-irritation, mechanical appliances, are, all alike, of little or no value. In some cases the joint has been forcibly moved, the patient being under an anæsthetic, but though temporary improvement has followed, the pain and rigidity have soon returned. In the present case, Mr. Hutchinson advised that care should be taken to provide the patient with light and well-fitting boots, and that he should, if at all possible, change his occupation. Apart from the last-mentioned, there is not much chance of cure. Amputation of the toe is quite without justification. The loss of the big toe is a serious penalty, and, further, the disease tends to become much less troublesome as the patient reaches full adult age. Excision of the joint is a possible measure, though it incurs some risk of bony ankylosis and consequent loss of spring in the front part of the foot. If the patient cannot change his occupation, and his symptoms continue, it would certainly be justifiable to excise the joint, removing only the articular end of the phalanx, and leaving that of the metatarsal bone in the hope that by this manœuvre ankylosis might be avoided



Case of Macrodactyly. (*Mr. Jonathan Hutchinson, junr.*)

A Case of Macrodactyly.

The remarkable condition of this patient's right hand is well shown in the accompanying illustrations (pp. 119, 120). The patient is a man of 54 years, and has worked all his life as a cooper. In spite of the deformity of his hand, he has found it a very useful member, and the callosities which exist on his thumb and on his enormous index finger are evidence of the practical service he has obtained from it. As is seen in the photographs, the fourth and fifth fingers of the hand are bent into the palm, apparently as the result of some ligamentous contraction. The middle finger was amputated when he was an infant of seven months, presumably on account of its abnormal size. The operation was followed by "erysipelas," and the hand is marked by the scars of the incisions made to relieve this condition. The great size of the index finger is due to hypertrophy of all the tissues—of the bones as well as the soft parts. The skiagram shows enlargement of all the phalanges, more particularly of the terminal one, and there are large bony outgrowths which appear as prominent nodules, especially on the dorsum. The joints of the finger are the site of bony ankylosis. The thumb is much less hypertrophied than the finger, but here also there is ankylosis, and exostoses are present on the phalanges; in addition, on the flexor aspect is a soft or elastic mass, probably cartilaginous in nature, and representing an earlier condition of the osseous growths. Two different views are advanced to explain these conditions of macrodactylism. One regards the primary condition as a vascular and lymphatic hypertrophy, and interprets the excess of growth as the result of a too-abundant nutritive supply. The other looks upon the hypertrophy as a vice which affects equally all the tissues of the affected part, due perhaps to some inherited impulse in the shape of reversion to a former type; according to this theory, therefore, the vascular enlargement is not the cause of the condition, but merely part and parcel of the general abnormality. Mr. Hutchinson quoted a case in which macrodactyly was associated with exostoses



Case of Macrodactyly. (*Mr. Jonathan Hutchinson, junr.*)

on the skull and other bones as favouring the suggestion that in these cases there is some perverted tissue impulse, and not a mere hypertrophy as the result of a local enlargement of lymphatics and blood-vessels.

So far as the case has a practical lesson, this appears to be in the direction of opposition to the removal of the hypertrophied part in cases of macrodactyly. Had this man's index finger and thumb been removed in early life, he would have had a much less useful hand than the one with which, in spite of its clumsy and inartistic appearance, he has been able to earn his living for more than forty years.

A Case of Stricture of the Œsophagus.

The patient whose hand has just been described came under observation, not on account of his macrodactyly, but because he had for some months had difficulty in swallowing, and had been losing flesh. Examination of the chest had failed to reveal any evidence of aneurism or other mediastinal tumour. A bougie was therefore passed into the œsophagus, but was stopped at a point fifteen inches from the incisor teeth, showing the presence of a stricture just above the cardiac orifice of the stomach; not even the smallest-sized bougie could be made to pass the stricture. There was nothing in the man's history to suggest traumatic stricture such as may follow the swallowing of some corrosive poison. Hence there remained, as the only possible diagnoses, malignant disease and syphilis. Of the latter there was neither history nor evidence, and the age of the patient, the position of the stricture, and the marked loss of flesh, were all in harmony with a diagnosis of malignant disease. In all such cases, however, it is well to try the effect of iodide of potassium. Instances have occurred in which, under this treatment, a stricture of the œsophagus has disappeared, though there appeared no warrant for the suggestion of specific disease. In the present case improvement had followed, but the diagnosis of malignant disease was, however, probably correct. In this connection it is noteworthy that the patient, under careful feeding in hospital, had gained fully a stone in weight. There was therefore no immediate claim for the performance of gastrostomy, and that operation may be postponed until it is no longer possible to maintain the man's nutrition by feeding him by the mouth.

A Chronic Ulcer of the Tongue.

A woman of 39 years was shown with a superficial ulcer of the tip of the tongue. She was the subject of chronic dyspepsia, and Dr. Fisher, who had known her for some time, said that the ulcer was much in the same condition as it was five years ago. In these circumstances malignant disease, syphilis, and tubercle, as causes of the condition, could be excluded. Hence arose the suggestion of local irritation, and an examination of the teeth showed a sharp edge projecting backwards from one of the lower incisor teeth. It was advised that this should be filed off, and that the ulcer should be treated by the application of a weak chromic acid solution (5 to 10 grains to the ounce).

[A gentleman present referred to a similar case in his own practice. He had applied perchloride of mercury in glycerine (1 in 1,000), and under this treatment the ulcer rapidly healed.]

BY P. J. FREYER, M.D., M.CH.

Wednesday, January 14, 1903.

Dr. Freyer described three cases illustrating various phases of ureteral surgery which, by a somewhat strange coincidence, he had operated on in St. Peter's Hospital on one and the same day. He drew attention to the difficulty, as a rule the impossibility, of diagnosing a stone in the ureter unless when impacted in its lower end.

Calculus Impacted in Lower End of Ureter: Retro-peritoneal Uretero-lithotomy: Cure.

J. H., a female aged 18, came to St. Peter's Hospital, July 25, 1902, with a history of left renal colic of eighteen months' duration. The pain frequently recurred, sometimes daily, and shot downwards from the loin to the groin. It was very severe, "doubling her up," and attended by nausea, vomiting, and profuse perspiration. Hæmaturia was observed on several occasions. There was no enlargement of the kidney, and no tenderness on pressure. Getting no better under treatment as an out-patient she was admitted, and on September 12 was examined under an anæsthetic. Cystoscopy revealed nothing abnormal about the ureteral openings. A small, hard nodule, the size of a split pea, was felt high up in the vagina on the left side, to the outer side of the cervix uteri, and this was diagnosed to be a stone in the lower part of the ureter.

On September 19 Dr. Freyer operated, commencing by an incision four inches long, as for ligature of the left external iliac artery. The dissection was then carried through the abdominal wall down to the sub-peritoneal tissue. The peritoneum was raised inwards off the upper pelvic walls, exposing the iliac vessels, when the ureter was recognised, adherent to the peritoneum, and crossing the artery, and was traced down into the true pelvis behind the walls of Douglas's pouch. A small stone was felt in the ureter one inch from the bladder, and a longitudinal incision was made in the dilated ureter a short distance above this, it being found impossible to reach the stone with the knife owing to its depth in the pelvis. The incision was immediately followed by a gush of urine. The calculus was grasped by sinus forceps, introduced through the ureteral incision, and, breaking into fragments, was removed piecemeal. The calculus consisted of uric acid, and weighed only five grains. The finger of an assistant in the vagina was found to be of no aid in pushing the stone upwards. The ureteral wound was closed by fine interrupted silk sutures, a gauze drain introduced, and the abdominal wound closed by silkworm sutures. In spite of the sutures in the ureter the wound leaked, some urine passing in this way for a few days. The case did well, however, and the patient was discharged cured on October 18. The patient, now in perfect health, was shown to the class.

Calculus Impacted in Left Ureter two inches below Pelvis of Kidney: Successful Uretero-lithotomy.

G. M., a male aged 28 years, admitted to St. Peter's Hospital, September 9, 1902, with symptoms of calculus in left kidney, of fourteen months' duration. There had been several attacks of left renal colic, each lasting about a week and accompanied usually by hæmaturia. The pain commenced in the loin, and at times extended into the corresponding groin, and also into the testicle. The pain was absent at one period for two months, but had lately recurred with increased severity.

Left renal calculus being diagnosed, Dr. Freyer explored the kidney on September 17, by the usual oblique incision in the left loin. No stone being found in the kidney, even after withdrawing it on to the loin and introducing the finger through an incision in its convex border into the pelvis, the lumbar incision was extended downwards an inch or two, and the ureter traced downwards, when a stone was felt impacted therein, two inches from the pelvis of the kidney. It was found impossible to push the stone up into the pelvis, so a longitudinal incision was made in the ureter over the stone, which was thus extracted. No sutures were introduced into the ureter, but a drainage tube was inserted as far as the ureteral wound.

Urine drained by the wound for four days and then ceased. The wound was thoroughly healed by October 16, when the patient went home and has had no trouble since. The calculus was a rough oxalate one, the size of a date stone.

Hydronephrosis: Movable Kidney: Kink and Stricture of Ureter: Dilatation of Stricture, and Nephrorrhaphy: Cure.

C. W., a woman aged 31, had suffered for eighteen months from pain in left lumbar region which commenced behind and extended round to the front below the umbilical region, but never into groin or labium. Three attacks during pregnancy in August, 1901; since then as frequently as four times a week. The attacks were marked by fearful agony accompanied by vomiting, cold sweats, severe hæmaturia and great frequency of micturition. The left kidney was very movable, and a fulness was felt in the left loin.

Cystoscopy on September 14, 1902, showed the left ureteral opening to be enlarged and irregular.

On September 19, Dr. Freyer explored the left kidney by the usual oblique lumbar incision. The kidney was easily withdrawn on to the loin; it was hydronephrotic, the pelvis being enormously distended and fully half the size of a normal kidney. An incision through the convex border of the kidney and the introduction of the finger into the pelvis was followed by the escape of a large quantity of urine. No stone was present. Dr. Freyer then attempted to pass a catheter through the ureter, but it was arrested just below the pelvis of the kidney. Exploration by the finger external to the ureter discovered a kink in the ureter at this point and also a stricture due to inflammatory adhesions of the peri-ureteral connective tissues. The latter were stripped off the ureter at the strictured point, and then a succession of bougies up to No. 9 of the English scale passed through the stricture. Nephrorrhaphy was then performed, the kidney being fixed high up, so as to put the ureter on the stretch.

The wound was healed and the patient discharged October 18. On January 12, 1903, the patient was in excellent health, untroubled by any urinary symptoms.

Dr. Freyer also gave details of a recent series of ten cases of total extirpation of the prostate for radical cure of enlargement of that organ, and exhibited the prostates removed.

BY JAMES BERRY, B.S., F.R.C.S.

Wednesday, January 21, 1903.

Tubercular Disease of the Cæcum.

THE present condition of this patient, a man of 37 years, is, considering his recent history, a very satisfactory one. From 1898 to 1901 he suffered from repeated attacks of severe diarrhœa, sometimes attended with vomiting. These symptoms were associated with marked loss of flesh and with general prostration and weakness. The patient ultimately gained admission to the Royal Free Hospital, and it was then discovered that some form of tumour was present in the lower right abdomen. An exploratory operation was undertaken by Mr. Roughton, and this revealed a considerable mass of firm tissue—believed to be tubercular in origin—surrounding and involving the cæcum and adjacent portions of the intestine. The conditions were such that it was judged impossible to remove this mass, and an anastomosis was therefore established between the lower part of the ileum and the transverse colon. The patient made an excellent recovery, and under the influence of rest, country air, and a generous diet, has regained to a very large extent his former energy and strength; also the evidences of tumour in the lower right abdomen have practically disappeared. To this satisfactory issue there is only one qualification, namely, the development of a fæcal fistula in the scar of the operation wound. The fistula is a very small one, and the leakage through it is inconsiderable. But it exists, and the question therefore arises whether any surgical measure should be undertaken with a view to close it. Mr. Berry expressed the opinion that in the meantime nothing further should be done. The patient's general condition is still improving, and the inconvenience arising from so small a fistula is relatively slight. Hence there is certainly no question of urgency, and even the chances of natural closure by cicatrisation are not altogether exhausted. There is, however, one suggestion arising from the existence of the fistula which has in it a note of anxiety. It is the possibility of the artificial intestinal anastomosis being insufficiently free. Leakage through the operation scar can hardly fail to raise a question whether the fæces are able to pass readily along the channel provided by the union of the ileum and transverse colon. At present, the small size of the fistula, and the limited amount of fæcal discharge, may be held to have another interpretation, but if these conditions become more marked, the probable explanation will be an insufficiently free anastomosis in the bowel. In such circumstances active measures would be fully justified, and they would have to include not only treatment of the fistulous opening, but also examination, and if necessary, enlargement of the anastomotic opening between the small and large intestine. The principle which demands that a urethral stricture must be dilated as a necessary preliminary to the treatment of a perineal fistula, is equally applicable to a fistula involving the intestine.

An Abdominal Tumour.

The patient was an unmarried woman, 32 years of age. She had complained of pain in the lower left abdomen during the last five years, and recently a tumour had been detected in this situation. The nature of this tumour was the question presented for diagnosis. It was a globular mass about the size of a cricket ball, smooth on the surface, of elastic consistence, with a large range of mobility, and free from tenderness. That the tumour was in the cavity, and not growing from the wall of, the abdomen was certain, because (1) it was freely movable, and (2) when the abdominal walls were made rigid, as by the patient raising herself from the recumbent to the sitting posture, by the contraction of the abdominal muscles, the tumour became not more, but less prominent. The situation of the tumour, in view particularly of the sex of the patient, necessarily suggested an intrapelvic origin. This suspicion was further strengthened by the fact that, whilst freely movable from side to side, the tumour could not be displaced upwards beyond a point where its upper border was at the level of the umbilicus. The left kidney could be excluded as (1) the mass did not project in the left loin; (2) percussion over it was dull and did not show any line of tympanitic resonance such as is found in (left) renal tumours from the presence in front of them of the descending colon; and (3) the history was entirely free from all symptoms of renal disease, and the urine contained neither albumen nor blood.

Hence there remained the uterus, ovary, and left Fallopian tube, as the possible sources of the tumour. In these circumstances the question of pregnancy had to be considered. Against this was not only the patient's statement that the menses were regular, but also the fact that a menstrual period had recently occurred during her residence in hospital. Further, there was (1) no enlargement or other suggestive change in the mammæ, (2) none of the certain signs of pregnancy in connection with the tumour itself, and (3) the uterus on examination was found to be displaced downwards and free from evidence of enlargement. Another possibility suggested was a uterine fibroid. Against this were quoted the age of the patient, the absence of menstrual excess, the non-attachment of the tumour to the uterus, and the soft elastic character of the swelling. A tubal pregnancy was excluded on the ground that (1) there were none of the reflex signs of pregnancy; (2) there was no history of the usual irregular attacks of hæmorrhage; (3) the swelling was not fixed, but on the other hand was freely movable; and (4) there was no enlargement of the uterus. The free mobility of the tumour and its ready separation from the uterus also negatived the diagnosis of other abnormal conditions of the Fallopian tube, nor was there anything in the patient's history to throw suspicion in this direction; she was unmarried and had never to her knowledge had any form of intrapelvic disease. As opposed to the above facts the position and characters of the tumour, and the statements in reference to menstruation, entirely harmonised with the theory of an ovarian cyst, and this diagnosis was therefore adopted.

[The tumour was subsequently removed by Mrs. Scharlieb, M.S., and the diagnosis confirmed.]

A Tumour of the Breast.

The patient was an unmarried woman of 22 years. She complained of an enlargement of the right breast. The history was of two years' duration, but there had been no appreciable change during the last twelve months. Examination showed the right breast to be much enlarged, decidedly pendulous, and with some dilatation of the superficial veins. The absence of all history of pain was proof that the condition was not inflammatory, and the restriction of the enlargement to one breast was sufficient to exclude a diagnosis of simple hypertrophy. Further, palpation detected an unduly resistant mass, not very clearly defined, and set deeply in the breast substance. This was not adherent either to the skin or the pectoralis major, and these characters, together with the length of the history, the age of the patient, and the absence of glandular enlargement, showed the mass to be non-malignant in character. It was concluded that the growth was a soft adenoma growing rather behind than in the breast, and it was pointed out that a tumour of this nature and situation is not always easily recognised as it pushes the breast substance proper in front of it and its consistence does not readily demarcate it from the gland tissue. This has sometimes led in such cases to a diagnosis of simple hypertrophy—a diagnosis which, when only one breast is affected, is something more than doubtful.

[At the subsequent operation the tumour was proved to be a large fibro-adenoma which was removed without damage to the remainder of the breast.]

DISEASES OF THE EYE.

BY R. MARCUS GUNN, F.R.C.S.

Friday, January 30, 1903.

Thrombosis of the Central Artery of the Retina.

A WOMAN, aged 50 years, presented herself with the statement that a fortnight ago she had suddenly lost the sight of her left eye. For a day or so before this her vision had been misty, but, in the end, the complete loss of sight was a sudden event.

Sudden loss of sight in one eye is not a very common circumstance, and the causes capable of producing it are not numerous. In some instances the alarm is a false one. A patient who from any cause, for example, a considerable error of refraction, has never had any effective sight in one of his eyes, and who accidentally closes or covers up the other (a normal eye), may—being alarmed to find that under these conditions he is almost blind—come with the complaint of sudden loss of sight. He will be surprised, and perhaps incredulous, when he is told that the condition has existed from infancy. It is indeed extraordinary, the comparative frequency with which a discovery of this nature is postponed until adult age, though the conditions favouring it have been in existence for many years. One of the pathological causes of rapid loss of sight in one eye is inflammation of the trunk of the optic nerve (retro-bulbar neuritis). Another is detachment of the retina. The most dramatic cases, however, are those due to plugging of the central artery of the retina by an embolus (retinal embolism). In the present case, there was without question plugging of the retinal artery, for the branches of the artery were seen to be reduced to mere threads, there was intense anæmia of the whole fundus, and the macula showed a deep red or plum-coloured spot recognised as characteristic of blocking of the main vessel. The only point at issue was whether the case was one of thrombosis or embolism. In favour of the latter was the existence of a systolic murmur heard over the cardiac impulse. Thrombosis *in situ* was supported by the period of preliminary mistiness preceding the loss of sight and by the evidences of degeneration in the smaller retinal arteries as seen by the ophthalmoscope. Embolism usually occurs without the slightest warning or notice, whilst thrombosis, dependent as this is on a previous degeneration of the wall of the vessel, may be preceded by symptoms due to a gradual arterial narrowing, the complete loss of sight only occurring when the block in the artery is made absolute.

A Case of Glaucoma Simplex.

This case illustrated the fact that a diagnosis of glaucoma has sometimes to be made in the absence of several of the symptoms which are commonly regarded as typical of that condition. The patient, a woman of 45 years, complained only of some sense of failing vision in the right eye, and of the appearance of rings of colour round the flame of her lamp. Her symptoms had extended over some few weeks; they had never included pain either in the eye or forehead. Further, the tension of the eyeball was not raised, there was no appearance of congestion in the anterior part of the globe, the pupil was not dilated, and the patient had a fair measure of central vision. There was, however, considerable contraction of the nasal visual field, and also slight cupping of the disc—facts which, when associated with a complaint of diminished vision and of coloured halos, are sufficient to justify a diagnosis of glaucoma. Mr. Gunn advised the performance of an iridectomy in each eye. It may be added that, whilst the retinal arteries were free from visible pulsation, a venous pulse was unusually well seen, and attention was directed to the character of this as suggestive of an abnormal condition of the ocular circulation.

Examples of Iritis and Irido-Cyclitis.

The first of these patients was a young man who, fifteen months ago, had contracted a chancre which was followed by evidences of secondary syphilis. Within the last week his right eye had become red and painful, and examination readily detected evidences of iritis in the form of uveal pigment deposited on the anterior capsule of the lens. The pupil, however, dilated widely and evenly under atropine. Hence, so far as the eye is concerned, the prognosis is good, for the local conditions will yield to mercurial treatment, and syphilitic iritis has little or no tendency to recur. In the substance of the upper part of the cornea were seen a few dull white spots—a dotted interstitial keratitis, which is not very uncommon in association with syphilitic iritis.

The second patient was a man of 28 years, who had had repeated attacks of iritis—a history suggesting rheumatic rather than specific disease. By some it is taught that all cases of rheumatic iritis depend originally on an attack of gonorrhœa, that is to say, they are essentially examples of gonorrhœal iritis. This is too sweeping a statement. Gonorrhœal urethritis is, without doubt, responsible for many cases, but other instances occur where the iritis is purely rheumatic. In the present patient there was a history of gonorrhœa and recurring gleet, and it is reasonable therefore to charge this with his repeated attacks of iritis. These attacks have had serious consequences. Under atropine one pupil dilates, though irregularly from the presence of posterior synechiæ, whilst the other does not yield at all, because its whole circumference is bound to the capsule of the lens. These are the consequences of neglect of early treatment. Atropine and hot fomentations to the eyes, and the practice of mercurial inunction applied promptly and thoroughly, will in the great majority of cases of iritis prevent the formation of adhesions. In the present instance the mischief is done. The only question is whether anything can be attempted to lessen this evil or to obviate its possible consequences. The best advice to give to the patient is to submit to an iridectomy on the eye in which the pupil is fixed by a ring of adhesions. The operation will lessen the chances of a secondary glaucoma and may do something to diminish the probability of further recurrence of the iritis.

The third patient, a young woman, complained of some discomfort, hardly amounting to pain, in the left eye. The eye presented some degree of circum-corneal redness, and on the deep surface of the cornea could be seen the opaque white spots of "keratitis punctata." It is to be noted that these undoubted evidences of cyclitis existed without any serious suffering on the part of the patient. This contrast was all the more conspicuous owing to the fact that the patient had, according to her own statement, become blind in her right eye as the result of some change following an attack very similar to that now affecting her left eye. Examination of the right eye offered distinct confirmation of her statement. Vision was hardly more than mere perception of light, the lens was opaque, and the tension of the globe below normal. Mr. Gunn traced these effects to an attack of irido-cyclitis which had produced changes in the nutrition and structure of both vitreous and lens, accompanied probably by detachment of the retina. These grave changes had all occurred without the production of an amount of pain sufficient to prompt the patient to seek medical aid. It is only when the second eye begins to be irritable that she takes fright in the early stage of the disease. Atropine, hot fomentations, and mercurial inunction, will probably save the situation, so far as the left eye is concerned. For the blind eye nothing can be done. An attempt to extract the opaque lens would almost certainly fail, and, even if successful, would do no good. The sensitive structures of the retina are doubtless hopelessly damaged, and even if light could reach them they are incapable of responding to its stimulus. There is no need to remove the eyeball. The sole annoyance it causes the patient is due to its unsightly appearance, and this is not a sufficient reason for removal. The condition does not involve any risk of sympathetic ophthalmitis. Later on, in consequence of the formation of bony plates in the choroid, there may be some pain from irritation of the ciliary nerves, and in these circumstances it may be necessary to remove the eyeball. But for the present the sound policy is to leave it alone.

Choroiditis in early childhood: Hutchinson's Teeth: Iridoplegia.

A boy of 13 years was shown with well-marked disseminated choroidal atrophy. In addition he had characteristically notched upper central incisors and paralysis of the right iris (iridoplegia), but without loss of the power of accommodation. In the face of these facts the diagnosis of hereditary syphilis was, of course, inevitable. The position had been a more difficult one when the lad came under observation at 3 years of age. Then, the single existing fact capable of suggesting specific disease was an active choroiditis attended with the presence of fine dust-like opacities in the vitreous. The family history, so far as it could be investigated, seemed to render syphilis unlikely. Nevertheless, the choroiditis existed, and an explanation of it other than syphilis is not easy to find. The absence of any other explanation does not justify a positive diagnosis of syphilis, though it necessarily forms a basis for suspicion. Hence the earlier examination of the case left the essential diagnosis doubtful. Time has now resolved the doubt. Whatever uncertainty may attach to a disseminated choroiditis occurring in early childhood, there can be no difficulty when the permanent incisors appear with the distinctive marks of hereditary syphilis. In the present instance, further information is afforded by the iridoplegia. Ocular paralyses, and, indeed, nervous affections generally, are not frequent events in hereditary syphilis. But such paralyses occurring in early life, and in the absence of a history of diphtheria, suggest a syphilitic causation. In this patient the paralysis is one-sided and is confined strictly to the iris. The pupil is widely dilated and gives no light response, but the patient has a good range of accommodation (he can read the smallest test type), and there is no defect in the action of the external muscles. Another instructive fact is the degree of visual efficiency in spite of the choroiditis. Fortunately the areas attacked by the disease are, as is frequently the case, small in size and distributed mainly in the periphery. The macular regions are healthy, and thus the patient enjoys good central vision.

DISEASES OF THE THROAT, NOSE, AND EAR.

BY HERBERT TILLEY, M.D., F.R.C.S.

Friday, January 23, 1903.

Operation for the Relief of Adhesion of Soft Palate to Posterior Pharyngeal Wall, the result of Cicatrisation following Tertiary Syphilitic Ulceration.

THE patient was an unmarried female aged 24, in whom extensive cicatrisation of the soft palate to the posterior pharyngeal wall had resulted in the establishment of an almost complete partition between the pharynx and the post-nasal space. It was only possible to pass the point of an ordinary probe from the oro- into the naso-pharynx. The patient had been twice operated on before the case came under Dr. Tilley's care, and the result illustrated the well-known difficulty of permanently relieving this condition. In these earlier operations the adhesions had been thoroughly divided, but apparently no means had been adopted to prevent union of the separated parts again taking place, and hence, within a fortnight, the patient's condition was in each instance the same as before operation was undertaken.

It is obvious that, in order to secure permanent benefit, some means must be adopted, after dividing the adhesions, to hold the soft palate forwards while the raw surfaces caused by dividing the adhesions heal over. Dr. Tilley had therefore passed a stout silver wire through the soft palate close to its attachment to the bone and about half an inch to one side of the median line; the end of this was then again drawn through the soft palate from behind forwards about a quarter of an inch from the free margin. A free and short segment of the loop therefore rested on the upper and posterior surface of the soft palate. The free ends of the wire were then drawn tightly forwards and fixed around the "neck" of the corresponding central incisor tooth. A similar procedure was then carried out on the other side. The wires cut out about a fornight after the operation, but by this time a considerable portion of the raw area produced by division of the adhesions had become covered by normal epithelium, and hence no re-adhesion took place when the soft palate was released from its moorings. Every day during the second and third week following the operation the surgeon's index finger was inserted into the naso-pharynx, and firm, forward traction on the palate was in this way carried out for three to five seconds.

The discomfort caused by extensive adhesion of the soft palate to the pharynx is very great, as nasal respiration is impossible, and there is a constant discharge of mucus from the nostrils, since it is impossible either to use the handkerchief or to swallow the normal mucus in the usual way.

Hoarseness caused by a Localised Hypertrophic Laryngitis.

Patient was a male, age 41, who complained of hoarseness of eight to ten weeks' duration. There was no pain on using the voice or on swallowing, and the man was otherwise in good health. He was not an excessive drinker or smoker, neither did he make excessive demands on his voice.

On laryngoscopic examination a very well-marked turgid swelling of the mucous membrane was seen in the inter-arytenoid fold, and this prevented complete adduction of the vocal cords on phonation.

There are many degrees of this condition, and the slighter ones can be much relieved by a course of blue pill and salines followed by small doses of iodide of potassium. In some cases complete rest of the voice gives considerable relief, but in such a case as the present one, only removal of the growth by intra-laryngeal forceps will be of any permanent value.

Hoarseness due to Early Tubercular Laryngitis.

The patient was a young man, age 29, who had complained of hoarseness for three months. The palate was very anæmic, and this, when contrasted with his otherwise healthy appearance, was suspicious of tubercular mischief lower down. The left vocal cord was normal, but the right had a reddish, swollen, and granular appearance with some œdema of the corresponding arytenoid mucosa. These signs are very characteristic of early tubercular laryngitis. The lungs were both affected in their apices, but the disease did not seem very active, and hence the case is a very suitable one for the open-air treatment. Functional rest is the chief need of the larynx, and no active interference is at present called for. The larynx will probably improve as the activity of the disease in the lungs is modified.

REVIEWS AND NOTICES OF BOOKS.

MANUAL OF HYGIENE FOR USE IN INDIA. By Charles Banks, M.D., D.P.H. (London : Macmillan & Co., Ltd.)

THIS is an excellent little manual. It is well arranged, well written, and well illustrated. The author has had many years' experience as Superintendent of Emigration at Calcutta, and he writes more particularly for Indian students. His pages are almost equally suitable for our northern latitudes. As a text-book for popular classes in elementary physiology and hygiene we know of none better than the one before us. Both in manner and matter it is worthy of high praise.

THE CAUSE AND PREVENTION OF DECAY IN TEETH. By J. Sim Wallace, M.D., L.D.S. Second Edition. (London : J. & A. Churchill, 1902.)

THIS is a very suggestive and interesting essay on a most important subject. Dr. Wallace advances the view that the predisposing cause of caries of the teeth is to be found in the injudicious selection of food-stuffs, and that prevention of the disease is to be secured by the use of food sufficiently coarse and fibrous to ensure a fair amount of friction, a small amount of lodging food particles, and a sufficient amount of stimulus for the physiological uses of the teeth." These propositions he supports by a number of well-presented arguments, and he examines the more generally accepted theories in a critical, though temperate fashion. His teaching is of importance to all who are responsible for guiding parents in regard to the health of their children, and it would be well, we think, for the medical profession to put his views to the test of experience.

THE ERRORS OF ACCOMMODATION AND REFRACTION OF THE EYE, AND THEIR TREATMENT. By Ernest Clarke, M.D., F.R.C.S. (London : Baillière, Tindal & Cox, 1903.)

THE aim of this manual is essentially a practical one. It is to afford assistance and direction to students and practitioners anxious to understand and correct the various errors of refraction met with in actual clinical work. In the early chapters there is a brief but sufficient discussion of the elementary laws of optics, the physical properties of lenses, and the dioptric mechanism of the eyeball. Afterwards, the phenomena of accommodation and convergence are considered, more especially in their practical aspects. Then in due order follow chapters dealing with the several forms of refractive error—their nature, causation, symptoms, and the methods by which they are to be estimated and corrected. All this is presented in effective fashion and with distinct success. General principles as well as practical rules are carefully explained, and the recognised difficulties of the subject receive adequate treatment. A feature of much value is the introduction of a series of brief case-records. These illustrate the application of the principles of treatment to individual cases, and will, we are sure, prove of real help to the beginner. Dr. Clarke also gives a full statement of the visual tests and conditions applied to candidates for the various public services—information often desired and not very readily accessible. In all respects his book commands confidence, and we heartily wish it an abundant success.

NOTES ON FOOD AND DRUGS.

Potassium Permanganate.—Professor Stephenson, of Aberdeen, teaches that potassium permanganate has a very distinct field of usefulness. He recognises, what is now generally allowed, that it is not a substitute for iron in the treatment of chlorosis. His position is, that the salt is valuable in certain forms of menstrual suffering. The cases in which it is successful are those where pain is associated with weariness and lack of energy, particularly as the menstrual period approaches. The patients are not chlorotic, but give evidence of imperfect circulation in the veins and capillaries. The hands have a dull red colour, and when cold take on a purplish or "blue" tint, and in marked cases the face displays similar characters. It is suggested that all this means a loss of balance between the arterial and venous systems; also that the menstrual suffering depends on venous congestion. Potassium permanganate, it is claimed, overcomes these conditions and produces permanent benefit. When, with the above symptoms, anæmia is present, the patient will need iron in addition to the permanganate. Solutions of this salt have a very disagreeable taste; it should therefore be prescribed as a coated pill or tabella.

Menthol Ointment.—The local anæsthetic action of menthol is best obtained by using it in ointment form. A combination of menthol ʒj., lanoline and vaseline, of each ʒiv., is an excellent application in intercostal neuralgia, lumbago, muscular rheumatism, chronic painful joints, &c. The ointment basis favours sustained friction, which helps to carry the remedy through the epidermis, and is in itself a beneficial proceeding. The wool-fat also favours absorption.

Salutaris Water.—Apart from its attractiveness for domestic use, Salutaris water is of interest to the medical practitioner. In its "still" form it is pure distilled water which has gained what may be called a natural degree of aëration by allowing it to flow over charcoal. In this way it dissolves a certain percentage of atmospheric air and so has all the advantages, without the flatness and insipidity, of distilled water. Many patients who can only digest milk when it is diluted find that the addition of the ordinary effervescing waters cause discomfort and flatulence. In these circumstances "still" Salutaris is an excellent diluent. The aërated Salutaris is distilled water charged under moderate pressure with carbonic acid gas. Both this and the "still" variety have the further advantage of being very moderate in price.

Sterilised Saline Solution.—To meet an emergency demand for this —and it is usually in an emergency that it is required—Mr. Martindale, of

New Cavendish Street, prepares a concentrated sterilised solution of sodium chloride. A quantity sufficient to make two pints of fluid for intravenous injection is enclosed in a sealed glass tube. All that is required is to break off the end of the tube, and to add the contents to water which has been boiled and subsequently cooled to 105° F. The tubes are securely packed so that they may be carried with safety. They are certainly very convenient to have at hand. In addition to the simple saline solution there are others prepared and packed in a similar manner for the immediate preparation of a sterilised gelatine solution, suitable for subcutaneous injection in the treatment of hæmorrhage. Tubes for preparing solutions of pure phenol (1 in 20) and for making a 5 per cent. solution of glucose in a saline fluid are also supplied. The latter solution has been recommended by Mr. A. E. J. Barker for use in exhausting diseases and as a preliminary to severe operations (see *British Medical Journal*, March 29, 1902). The form of tube and mode of packing are represented in the accompanying illustration.

Cod Liver Oil.—One of the best methods of prescribing cod liver oil is to order it to be taken together with an acid and a bitter. Ten or fifteen drops of dilute phosphoric acid in half an ounce of compound infusion of gentian form a suitable vehicle. The oil should be poured over the surface of this at the time of administration. By commencing with a very small dose, and gradually increasing it, patients otherwise unable to take cod liver oil, may in this way be educated to suffer, and in some cases even to enjoy it in quite full doses.

Alkalies in Rheumatism.—The administration of alkalies in acute or subacute rheumatism still retains its popularity in some quarters. It is a method of treatment which certainly can claim many successes. For its fair trial it is essential that the salts be given in full and repeated doses. The test of efficiency is the reaction of the urine. Unless this is made alkaline the doses are insufficient. When put to the test it will often be found that potassium citrate, bicarbonate, &c., must be given in much larger doses than are usually ordered before they secure an alkaline urine. It is this reaction which is the measure and index of the doses required.

C. O. H.

CORRESPONDENCE AND ANSWERS.

The Authority of Galen.—"Within a century or two after Hippocrates, we know that the whole of his compacted doctrine had, as it were, been blown to the four winds in a multitude of discordant sects; and it was not till the great and eclectic system of Galen in the second century of the Christian era gathered up the fruits of this dispersion into a body of doctrine which held its own almost unquestioned throughout what we may call the Middle Ages, that the art of medicine can be said to have had even any appearance of stability at all. . . . . It was given to Galen to build up again the fame of Hippocrates; and had it not been for the overwhelming power and authority of Galen's immensely numerous writings, as well as the really pious regard which he always showed for the older and (I think) greater man, and the valuable commentaries he wrote upon many of the Hippocratic treatises, it is very doubtful whether the original father of the Greek medicine would have come down to us as anything much more than *nominis umbra*. For this, even if for nothing else, Galen would deserve the thanks of every student of medical history, and every admirer of one of the most transcendant names of all antiquity—the Æsculapian priest who first emancipated the art of medicine from the trammels of priestly control on the one hand, and of philosophic dogmatism on the other. . . . . For good or for evil it was Galenist doctrine, much more than Hippocratic doctrine, that moulded the ideas of the later Greeks, of the Arabians, and of the whole Middle Ages and revival of letters."—Sir Wm. Gairdner.

"Hippocrates, great as he was, might have found more than one equal among his contemporaries, but the second century can boast of but few men of genius, the most famous of whom was far inferior to Hippocrates. This was Claudius Galen (131-200), a man who not only knew all there was to know in his age, but possessed sufficient talent and originality to acquire the position of a medical dictator, and to maintain it for more than a thousand years. . . . . Hippocrates separated medicine from philosophy; the great aim of Galen was to rè-unite them. Hippocrates thinks little of theory and much of observation; Galen, if he does not absolutely reverse the order, at least considers them of equal importance. To Hippocrates medicine is before all things an art, 'the Art' as he continually calls it; Galen considers this as its lowest aspect, but his object is not so much to convert it into a science as into a philosophic system, and he accepts in its fullest sense the Dogmatic motto: 'The physician who is also a philosopher is godlike.' . . . The mediæval period . . . was essentially an age of authority in all things, bodily, mental and spiritual. Hippocrates, or one of his immediate pupils, had said: 'Science and belief (opinion) are two things, the one begets knowledge, the other ignorance.' It was hardly likely that the 'Ages of Faith' would adopt such a teacher, especially when Galen, like an infallible Pope, was ready with a fixed rule for every case, and with a theory, or at least an assertion, to explain every difficulty. But though Galen is inferior to Hippocrates, and though his followers persisted in retaining his livery till it was antiquated and outworn, thereby bringing ridicule both on themselves and their master, we must not let this blind us to the greatness and importance of his work. Some of it . . is of permanent value. Much more of it was the best that could be done under the circumstances."—Dr. E. Theodore Withington.

In the year 1559, John Geynes, M.D., a graduate in Medicine of the University of Oxford, was cited before the College of Physicians for impugning the infallibility of Galen. On his acknowledgment of error, and humble recantation, signed with his own hand, he was received into the College.—"The Roll of the Royal College of Physicians of London." By Wm. Munk, M.D., F.S.A.

THE POLYCLINIC

BEING THE

JOURNAL OF THE MEDICAL GRADUATES' COLLEGE, LONDON.

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LEPROSY IN RUSSIA.

The history of leprosy in Russia is of great interest. The Russian population belongs to the Greek church. Fasts are religiously observed, and they are more strict than in the rest of Christendom, since abstinence from fish as well as from flesh is enjoined. At the time when leprosy prevailed over the whole of the eastern part of the European continent, there was none in mid-Russia. In fact, no occurrence of the disease has ever been recorded in the inland parts of that vast territory. On the shores of the Black Sea, on those of the Caspian, and on various parts of the Baltic coast, leprosy has, however, prevailed, and still does so. In bygone times it had the name of the Crimean disease. In the words of Dr. Münch, who has written an excellent account of it as observed in Southern Russia, " Leprosy exists only on some of the borders of Russia."

It may be convenient to deal with Southern Russia first, and shall follow Dr. Münch's statements. In Astrachan there may be 100 lepers, of whom one half live on the left bank of the Volga, and the other half in Astrachan itself and in the Delta of the river. At a place called Karatchye, inhabited by a Moslem Tartar race, and on the upper part of the river Cubar, the number of lepers is estimated as high as 1 per cent. In the Don Cossack territory leprosy is found in many villages, but is most abundant near the mouth of the river Don. In the Crimea itself lepers are very few, and chiefly occur on the south-western shore of the Azof Sea. In Kherson and in its neighbourhood there are some, and in Turkestan more. The disease is nowhere uniformly spread, but occurs in certain villages, with intervening districts which are almost or wholly free.

As regards past history there is reason to believe that the disease has prevailed for centuries at least, and that it was at one time more abundant in the Crimea than it is at present. In 1839 Prahof reported on it to the Russian Government, in 1862 Oldckop wrote an account of his observations in Astrachan, and in 1869 he was followed by an army surgeon, Dr. Kozlowsky. All these observers rejected the suggestion of contagion; the last named attributed the disease exclusively to inheritance; and Dr. Oldckop avowed his belief that it was caused by eating fish.

It will be seen that a *prima facie* view of these facts would appear to give strong support to the fish hypothesis. The disease occurs at the mouths of the three great rivers, Volga, Ural and Don, and on the shores of the seas. Those who have observed it hold that it is not contagious. Dr. Münch, however, from whom I am quoting, rejects this hypothesis, and avows himself a contagionist. Let us see the reasons for his creed. He formulates his views under three principal heads :—

"(1) The disease may originate under the most varied telluric, atmospheric, social, and economical conditions.

"(2) The disease spreads chiefly in families, among relations.

"(3) A residence, more or less prolonged, in a district where the disease already exists is essential to contracting the disease."

Under the first of these propositions he considers that he has a right to avoid all reference to the views of those who would ascribe the disease to climate, poverty, or any article of food. This right is obtained, however, only if we grant that under the head of varied economical conditions we are to include a dietary into which fish does not enter. With this exception, those who contend for a food origin may freely accept all three propositions. Leprosy has certainly no relation to climatic or telluric conditions. It does often spread in families, for the suggested reason that families often use the same food (nor do we deny commensal communication), and residence in a leprosy district is essential to its acquisition for the reason that there only is the dangerous food to be found. This last point must not, however, be pushed too far, for sporadic *de novo* cases, although rare, do undoubtedly occur. Coming to more explicit statements, Dr. Münch asserts that leprosy in Southern Russia is met with, not only on the sea, but at enormous distances from it (Turkestan); and at a height of 4,000 feet above its level (Karatchye); in districts abounding in fish, and among a population that never uses that article of diet (Karatchye and Turkestan); amongst peoples living in comparative cleanliness and plenty, and among tribes who never change their clothes until they drop off their shoulders (Karatchye).

Now the whole gist of the question lies in the determination as to whether the inhabitants of Karatchye and Turkestan really do not obtain cured fish. That they live at great distance from the sea may be held to exclude fresh fish, unless, indeed, from rivers, but it does not by any means make it improbable that they obtain fish in its cured state, and Dr. Münch's statements do not imply that he has made any enquiry in this direction. Until this is done all argument is useless, for we are not sure of our fundamental facts. Dr. Münch tells us that the Tartars in Astrachan, who live in villages near to those of the Russians, but isolated from them, seldom or never contract leprosy. This he attributes to exemption from contagion, but it is quite as likely that it is due to Tartar abstinence from fish. He tells us that the Tartars have not even a name for leprosy, and that amongst the Kalmucks, also, the disease is very rare.

Although an advocate for contagion as the exclusive cause of the spread of leprosy, Dr. Münch admits that "we know little or nothing of the conditions under which it becomes contagious," and that we "must regard the poison as anything but energetic." He records the case of a woman who asserted that she had never even seen a leper.

THE USE OF THE METRIC SYSTEM IN PRESCRIPTIONS.

It is an almost unanimous opinion that the substitution of the metric system for the existing cumbrous, involved, and arbitrary tables of weights and measures would be a great and unmixed advantage. Scientific and commercial authorities, not less than educational experts, lend their influence and sanction to the suggested change. Yet the proposal does not get itself translated into action. Everyone applauds the suggestion, but nobody adopts the practice. The resolutions of congresses and the recommendations of experts receive everywhere an enthusiastic welcome, only, however, to be promptly relegated to the sterile region reserved for pious opinions and counsels of perfection. Custom and habit maintain their supremacy, and the revolution " evaporates in complimentary harangues."

We are not, in these pages, concerned with the difficulties of the situation in the large fields of general education and practical commerce. Our immediate interest is confined to the use of the metric system in prescriptions. The proposal to adopt the metric notation for this purpose has been repeatedly made, and that, too, by influential voices. But it does not go forward. It may be doubted whether the suggestion has gained any appreciable measure of success during the last twenty years. This failure has to be recorded in spite of earnest efforts made to attain a very different result. Of these we may take note of two. The one has been the introduction into the various preliminary examinations of a demand for a theoretical knowledge of the metric weights and measures. The other comprises several ingenious attempts to find a ready and simple means of translating the terms of the vulgar notation into metric equivalents. So far as the individual is concerned, the results of the first of these schemes are, it is to be feared, of merely temporary duration. The student passes from the examination-hall into a world where the metric system is an unknown, or, at least, an unspoken tongue. And like many other forms of knowledge which grow vigorously in pre-examination days, this, also, soon withers away. Regarding the attempts to find an easy method of translation, these, it may be freely allowed, have proved helpful to individuals on whom circumstances press the ready use of both systems. But mere facility in the act of translation will never succeed in gaining for any language free and popular employment as a common tongue. To secure this, something more radical is necessary. The language must first attain a position as an apt and familiar instrument of thought. For this reason it will never be possible to establish the general use of the metric system in prescriptions until prescribers are accustomed to think in its terms. To ask the physician to speak and write in one language whilst it is his custom and habit to think in another—even though a key to easy translation be at the same time provided—is to issue an invitation which human nature will not accept. There remains, therefore, small hope for the present generation. It is to the future—and the remote rather than the immediate future—that the advocate of the metric system must look for his triumphs. His plan of campaign must be so arranged that it will discipline those whose minds are not yet fixed in the method of the current fashion. And to organise victory, it is essential that the student be trained not merely to know the metric standards but also to make them the symbols and instruments of his thoughts.

All this, it may be objected, is mere platitude. We present it, however, not because it is new, but because there is one method of assisting its conversion into action which, so it seems to us, has been somewhat strangely overlooked. The practice of writing prescriptions, so far as this is related to weights and measures, is a question of doses. Once make it the habit of the prescriber to think of doses in metric phrases, and he will inevitably use these phrases in his prescriptions. At present, the student learns his doses in the ordinary notation because his teachers, text-books and examiners use that notation. And so long as his pastors and masters think and speak in grains and drachms and ounces, so long will the practice of the student be accommodated to the familiar strain. Now the principal reason or excuse why text-books and lectures adopt the current notation is that this is the language of the Pharmacopœia. For the student, the doses stated in the Pharmacopœia hold the field, and will doubtless long continue to hold the field. Examiners expect them, and authors and teachers supply them. If then the doses of the official remedies were recited in terms of the metric notation a very commanding position would be won. For the same terms would necessarily appear in text-books and lectures, and teachers and examiners, who are really the active agents in the perpetuation of the present system, would be compelled to adopt the new tongue. As a consequence, the student would learn from the outset to think of doses in metric terms, and would naturally continue as a prescriber the habits he had formed *in statu pupillari*. The last edition of the Pharmacopœia did so far recognise the metric system as to print the quantities of drugs to be used in making the various official preparations in terms of that system, as well as in those of the imperial weights and measures. But the pharmacopœial doses were stated only in the imperial notation. A great opportunity for helping forward the use of the metric system in medicine and pharmacy was thereby lost. To the enthusiast it may seem cold comfort to point forward to the next edition of the Pharmacopœia, which must, in the nature of things, be yet many years distant. But we venture to think that this will afford a more hopeful opportunity of extending widely the adoption of the metric system than any other which can at present be suggested. We are no advocates for converting the Pharmacopœia from its legitimate purpose into an instrument of education. But whilst remaining true to its main purpose, it may at the same time be used to promote other—though so far as it is concerned—less important purposes. Without legislating in advance of the public opinion of the constituency over which it rules, and without in any way detaching itself from the demands of practical life, the Pharmacopœia may, by the method above suggested, be legitimately used to popularise the use of the metric system among the next generation of prescribers. One opportunity has recently been lost. It is all the more important to make ready for the successful utilisation of a second occasion when this presents itself. Let the General Medical Council once authorise the presentation of the pharmacopœial doses in metric terms—placing, if this is deemed necessary, the present terms as alternatives, though of inferior precedence—and all else follows — text-books, lectures, students, prescribers, and dispensers. Even teachers and examiners—classes notoriously stiff-necked and hard to convert—would be compelled to yield to the inevitable pressure.

C. O. H.

DISEASE IN PAHANG.

Mr. John D. Gimlette, Residency Surgeon at Pahang, supplies to the "Selections from Colonial Medical Reports for 1900, &c.," an excellent paper on disease as observed in his district. Pahang is in the Straits of Malacca, and has a total population between 75,000 and 80,000. Malays come first, Chinese next, and mixed and coloured aborigines supply their quota. Heat and dampness prevail.

Beri-beri, he tells us, recurs year after year, especially in the tin-mining districts, always causing a heavy mortality among the coolies and seldom sparing the sinkeh or new arrival from China ; Sikhs appear to be exempt. No additions to our knowledge as to the probable cause of the disease are made, but it is stated that a febrile chill often precedes its development.

There are, and have been for years, a certain number of lepers, but there is no evidence of increase. The total number is estimated at 168, and this gives about 20 per 10,000, which is a heavy prevalence and far exceeds that of India. One case is recorded in detail on account of difficulties which had attended the diagnosis as between syphilis and beri-beri, and because the patient was a man in comfortable circumstances and no explanation could be given as to how he had acquired it. "It was an instance of the mystery which still surrounds the origin of isolated cases of leprosy."

Leucoderma in Malays is said to be common. The occurrence of keloid after vaccination is mentioned, but not as if it were frequent. In one instance two sisters developed these growths. The scars attained the size of florins, with the characteristic claw-like processes. This is cited as implying parasitism, but more probably it simply illustrates family tendency.

A noteworthy case of madura foot in a Malay boy required amputation. The ratio of mortality for the State was estimated at not much less than 35 per 1,000 for the year, having been only 20 in the previous year. Amongst rarities a case of lipoma of the cord is given, the opinion being confirmed by an operation.

All varieties of ringworm are common and so also is scabies.

There was an extraordinary exemption from deaths due to tuberculosis, not a single admission to the hospital having been registered under this head. So also there was no case of enteric fever recorded.

THE DIAGNOSIS OF INHERITED SYPHILIS.

The recognition of inherited syphilis in the individual patient is often a task free from all difficulty. Either the symptoms are numerous, or one or more of them are so well-marked, that there can be no hesitation in framing a diagnosis. It is very different when the problem presented for solution is the interpretation to be attached to a single fact which suggests more or less strongly the existence of specific disease. On a basis so narrow, there is a natural aversion to rest so grave a diagnosis as that of hereditary syphilis. In some instances there is no escape from the dilemma. In others, all uncertainty at once disappears when the area of observation is widened. For this extension the observer may be compelled to wait until, in the lapse of time, the patient shows additional and confirmatory evidence of the disease. But immediate conviction is sometimes possible by bringing other members of the family under observation. The not unnatural doubt attached to the meaning, for example, of choroiditis, scars at the angles of the mouth, a slight notching of the upper central incisors, a passive effusion of fluid into a knee-joint, evidences of chronic meningeal or brain disease, when any one of these exists as an isolated pathological event in a young child, may in many instances be made promptly to disappear by an examination of the patient's brothers and sisters. It may be reported that these are in all respects healthy, and yet one or more of them may bear unquestionable evidence of inherited syphilis. The degree in which different members of the same family suffer, varies within wide limits, and the force of the disease is sometimes distributed in a somewhat capricious fashion. It is no doubt the rule that the elder members of the family suffer most, and that the effects on the offspring of the parental infection appear to die out with the lapse of time. The story of repeated miscarriages, followed by the birth of an infant undoubtedly syphilitic, and later, of healthy children, is a familiar one. To such a sequence of events there are, however, exceptions. Thus, it occasionally happens that whilst one or more of the elder children show slight but definite traces of syphilis, those born subsequently suffer severely. The eldest member of a family may have nothing more serious than "notching" of the upper central incisors, whilst some later child may show grave depreciation of the general health associated with several of the stigmata characteristic of the disease. In such circumstances it may be urged that the later events are due to a fresh parental infection—a proposition obviously difficult to disprove. The fact remains that in syphilitic families the effects of the disease are not invariably graduated in severity according to the sequence of the numerical order of the members. And this fact strengthens the suggestion that in a one-symptom or otherwise doubtful case, an appeal should be made from the individual to the other members of the family. It is unnecessary to say that such an appeal must be conducted with discretion. Its object is not the gratification of mere scientific curiosity, but the welfare of individual patients.

C. O. H.

THE PROGNOSIS IN TUBERCULAR PERITONITIS.

In a recent discussion in the Society for the Study of Disease in Children an eminent surgeon is reported to have said that the discovery of the curability of tubercular peritonitis was only made when surgeons commenced to operate on patients suffering from this disease. So recently as six years ago, he had found himself unable to discover any statistics bearing on the prognosis. The division of the virtues and merits between surgeons on the one hand and physicians on the other, is often an opportunity for the display of a pretty wit, and nowadays, at all events, does not often take a less agreeable tone. With that aspect of the subject we are not at all concerned. But in the interests of accuracy we venture to draw attention to some lectures *On Tabes Mesenterica*[1] delivered by Dr.

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[1] "Lectures to Practitioners." By W. T. Gairdner, M.D., LL.D., and Joseph Coats, M.D. (Longmans, Green & Co., London.)

(now Sir William) Gairdner, not six, but sixteen years ago. The name of the lecturer is sufficient to show that his teaching was not only founded on extensive observation, but also that it was conveyed over a long term of years to the students of at least one considerable school of medicine. In the limited space at our disposal it would be absurd to attempt to do justice to these lectures, or even to those parts which deal with the question of prognosis. We would advise our readers to study them for themselves. But one or two quotations will be sufficient to show that at least one physician of the first rank, much earlier than "six years ago," was accustomed to teach that in a proportion of cases patients who suffer from tubercular peritonitis make a good recovery. We content ourselves with the following:—

> "I have for many years held that tubercular peritonitis, speaking of it as including, if not accurately corresponding with, chronic peritonitis generally, ought not to be regarded as having the gloomy prognosis commonly assigned to it; or at all events, that cases which are clinically undistinguishable from tubercular peritonitis do get well, or apparently well."
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> "Although it may be admitted, and freely admitted, that many cases of chronic peritonitis, or of glandular disease, are tubercular, and that many of these die, yet it by no means follows from this that cases of apparently the same order, but which recover, are not cases of mesenteric disease, or of chronic peritonitis."

If these quotations prompt any of our readers to consult the lectures *in extenso*, they, at least, will be thankful for our reference to the subject.

C. O. H.

THE DETECTION OF NYSTAGMUS.

Nystagmus is in certain cases so obvious a fact that the attention of the physician, or, indeed, of the ordinary observer, is at once attracted by it. In other instances, as in many cases of disseminated sclerosis, the rhythmical oscillation of the eyeballs only appears in certain positions, as, for example, when the eyes are forced into extreme lateral deviation. Obviously, therefore, this test ought always to be applied before it is concluded in any case that nystagmus is not present. There is another fallacy to be avoided. In a certain number of patients free from any suspicion of nervous disease, an extreme lateral position of the eyeballs is not infrequently attended by short, jerking movements which may be continued for some little time and may also have some degree of rhythmical character. These, it is true, would probably not be mistaken for genuine nystagmus by an experienced observer. But they often puzzle and sometimes deceive the anxious and careful practitioner. The estimate of their true value is to be gained by examining patients for nystagmus as a matter of routine. Such a course provides in time a clinical standard by which the observer is able to judge confidently between the abnormal and the *not*-abnormal. Here, as in other instances, it is only by prolonged and sustained education that one comes to be competent to determine when the pathological area has been definitely entered. The first step towards this is the appreciation of the range of physiological variation in healthy organs and functions. What is true of nystagmus is equally true of other relations of the musculature of the eyeball. The condition of the pupil, of the power of accommodation, and of the movements of the eyeball—even if the use of the ophthalmoscope and the perimeter cannot be included—it would be well to acquire the habit of examining as a matter of routine, and equally with the time-honoured inspection of the tongue and the counting of the pulse. Such a practice is a valuable educative influence, and is the only sure preparation for the detection of the early stages of several important nervous diseases.

C. O. H.

FILARIAL PARASITES.

Facts are accumulating as to the great frequency of filarial parasites in the human blood wholly without any concurrent developments of elephantiasis, and it may even come about that doubts may soon be expressed as to whether there is any causal connection between the two. Dr. Otho Galgey, reporting on the subject from Castries, St. Lucia, tells us, "The extremes of life offer no impediment to the presence of the filaria in the blood. I have detected *Filaria Demarquaii* on slides taken from children of 2 years of age. I have also succeeded in finding this embryo in great abundance in the blood of old people. I have counted in eight slides, taken every three hours, 1,857, which gives an average of 232 on each slide for the twenty-four hours. This possibly unique specimen of humanity was about 90 years of age, and spent most of her time asleep."

This filaria is to be distinguished from the *F. nocturna.* It is much more active in its movements, and may be found in the blood at any hour, day or night. Dr. Galgey thinks it not improbable that the *F. Demarquaii* and *F. Ozzardi* may be found to be of the same species ; that the identity of *F. nocturna* and *F. diurna* has been made probable.

MOSQUITO PERILS.

The indictment against the mosquito family increases in gravity. Anopheles is known to be the host of the malarial parasite, and *culex fatigans* (Low) plays the same *rôle* as regards the transmission of the filaria, whilst there is a strong suspicion that one of the same tribe may be the means of communicating yellow fever. Dr. Low found the filaria in the proboscis of the culex.

The important discovery to be hoped for is some means of destroying these pest-bearing insects. Professor Koch has summarised his conclusions in the statement "where there are no mosquitoes there is no endemic malaria." He cites two districts which are mosquito-free, one in Java, and one in East Africa, and in both of these places the malarial parasite was also absent. At the same time, the presence of the human host is also essential, for the mosquito cannot infect the mosquito. "No man, no malaria; no mosquito, no malaria." Dr. Manson has given us important and hopeful suggestions on this point. Quoting Dr. Daniels' opinion that in British Central Africa not one mosquito in 10,000 carries the malarial poison, he calculates that if a man is bitten ten times every night for a year, there will be risk of infection on only four of these occasions, whilst if, by taking care, the occurrence of mosquito bite be reduced to one a month, an individual might live a century in the district before infection occurred. We may be thankful that mosquitoes do not bite in the day-time, as this immensely reduces the trouble of precautions.

NOTES OF CASES DEMONSTRATED IN THE CONSULTATION THEATRES.

MEDICAL CASES.

BY SIR WILLIAM H. BROADBENT, BART., K.C.V.O.

Tuesday, February 17, 1903.

Chronic Arthritis following Rheumatic Fever.

THE patient was a woman of 38 years. Her right hand showed in characteristic fashion the features described as distinctive of rheumatoid arthritis. The heads of the metacarpal bones were considerably enlarged, and there was marked deflection of the digits towards the ulnar side. In addition, the small muscles of the hands were much wasted, the atrophy being particularly evident in the abductor indicis. The left hand, on the contrary, appeared normal, or at most showed a slight degree of prominence of the heads of the metacarpal bones. This unilateral character of the deformity was commented on as a very unusual condition. Bilateral symmetry, indeed, is one of the most striking features of the disease commonly named polyarticular rheumatoid arthritis. Commencing for the most part in the distal joints of the limbs, it either appears on the two sides at the same time, or its development on the one side only slightly antedates its appearance on the other. In the present instance this rule is departed from in a very marked manner, and as the history of the deformity extends over a period of seven years, it can hardly be pleaded that bilateral symmetry has not had the opportunity to display itself. The history has another feature of interest. The condition of the hand is referred by the patient to an attack of rheumatic fever from which she suffered seven years ago. All the other joints recovered, but those of the right hand remained stiff and painful, and the present condition of deformity gradually developed. As is well known, acute rheumatism does not usually lead to permanent deformity of the joints. The evidences of inflammation are of temporary duration, and when they subside the joints resume their normal condition. But here is a case in which a chronic and deforming arthritis has directly emerged from an attack of rheumatic fever, and with the arthritis is associated distinct muscular atrophy; that is to say, a condition of rheumatoid arthritis—strongly urged by some to be quite distinct from rheumatism—has immediately followed and grown out of an illness named rheumatic fever. In these circumstances it is possible some question may be raised regarding the accuracy of the original diagnosis.

It might be suggested that the acute illness was not really rheumatic fever, but was an acute rheumatoid arthritis, and that the deformity of the patient's right hand is to be accounted for by persistence of the disease in this one part, the other joints making a complete and comparatively prompt recovery. But, apart from other considerations, this proposition is seriously shaken by the fact that the patient has mitral disease, as is evidenced by the existence of a prolonged pre-systolic murmur. Those who assert that rheumatoid arthritis is non-rheumatic, are accustomed to support their position by quoting the absence of cardiac disease from the one, and its frequency in the other. Tried by this standard the present patient must be allowed to have suffered from acute rheumatism. Now she is the victim of rheumatoid arthritis. This association of events is suggestive. An acute polyarthritis complicated with endocarditis is followed by complete recovery of all the joints excepting those of the right hand, and these are found at a later date to display the characters which it is said are peculiar to rheumatoid arthritis as distinct from rheumatism. Such an experience, it can hardly be wondered at, may lead some to question whether a clear clinical line of distinction can be confidently drawn between rheumatic phenomena on the one hand and rheumatoid disease on the other. Certainly the order of events in the present case does seem to suggest that the agent or influence responsible for the acute polyarthritis of rheumatic fever may, at times, continue to operate so as to produce the chronic deformities of rheumatoid arthritis. The only alternative is to suggest that the rheumatic polyarthritis may produce some change in the joints which predisposes them to yield to the agent, whatever that may be, responsible as the proximate cause of rheumatoid arthritis; and this is the explanation adopted by those who hold that rheumatic and rheumatoid disease are two essentially different conditions.

Cases of Cardio-Vascular Disease.

A case of severe attacks of angina-like pain—the patient a woman of 59 years—was carefully analysed with a view to exact diagnosis and prognosis. It was pointed out that the condition could not be one of vaso-motor angina, as the pains had continued after the abnormal arterial tension had been removed by the use of potassium iodide, nitro-glycerine, &c. A statement of the patient to the effect that an attack of pain frequently developed immediately after lying down in bed, was commented on as very suggestive of a gastric causation of the attacks. As opposed to this, was the absence of all complaint of flatulence, vomiting, or other evidences of disturbed digestion; also the history of attacks extending over so long a period as eight months, and gradually increasing both in severity and frequency. Again, examination of the heart revealed no definite departure from normal. The conclusion arrived at was that the case was one of true angina pectoris, and particular emphasis was laid on the fact that the absence of obvious physical signs does not lighten the prognosis, but rather increases its gravity.

A second patient, a man of 25 years, with a history of two attacks of rheumatic fever, was examined, and found to be the subject of aortic obstruction and regurgitation (systolic and diastolic murmurs). The prognosis was discussed, and it was pointed out that the evidences of free regurgitation were decided, and that the prognosis was therefore a particularly anxious one. The evidences in this respect specially insisted on were: (1) The very considerable enlargement of the left ventricle as indicating the measure of the abnormal burden placed on the driving power of the heart. (2) The almost entire absence of the aortic second sound. This means much destruction of the curtains of the valve and consequent non-closure of the orifice. Hence free regurgitation must occur during the whole period of ventricular diastole. (3) The prominence of the collapsing character in the radial pulse (Corrigan's pulse). The marked and prompt collapse of the pulse obviously means ready emptying of the arterial system, due to part of the blood falling back into the left ventricle, in addition to the normal evacuation towards the capillaries. The less effective the closure of the aortic valve the greater the regurgitant flow, and the more marked, therefore, the collapse of the pulse. Hence a high degree of Corrigan's pulse means a seriously imperfect aortic valve, and a correspondingly serious prognosis.

A third patient exhibited the presystolic murmur of mitral stenosis; there were also some suggestions of the presence of adherent pericardium. In this latter respect attention was drawn to the absence of respiratory movement in the infra-sternal triangular space.

A Case of Graves' Disease.

The patient was a woman of 34 years. Exophthalmos and enlargement of the thyroid were only present in moderate degree, but the pulse was very rapid, fine tremor was seen in the hands, and the patient was much troubled by free sweating. The treatment advised was perfect quiet with rest in bed, alternated with gentle exercise in the open air. Belladonna should be given in gradually increasing doses, so as to produce and maintain its physiological effects—dilatation of the pupil, interference with the power of accommodation, and dryness of the mouth and throat. A generous diet, and such tonics as arsenic and strychnine, are also indicated. Bromides are sometimes useful, more especially when there is much restlessness or nervous excitement.

BY JAMES TAYLOR, M.D., F.R.C.P.

Tuesday, February 24, 1903.

A Case of Intracranial Tumour.

The features of special interest in this case were (1) the conclusive character of the clinical evidence supporting the diagnosis of intracranial tumour; (2) the long period of time over which the symptoms had extended; (3) the late development of defective vision; and (4) the marked improvement in the patient's condition. The patient was a woman aged 21 years. Three years ago she began to complain of intense headache. This occurred in the early morning, being repeated from day to day, and was sometimes attended with vomiting. The attacks continued for a period of two years, and then gradually declined both in frequency and severity. Twelve months ago the patient began to be aware of some difficulty in walking, and also of occasional diplopia; and from the same date she has been conscious of defective vision. The last-mentioned symptom, as the ophthalmoscope now shows, was the result of optic nerve atrophy, the consequence of a pre-existent optic neuritis. Attacks of intense headache, vomiting, and double optic neuritis, form a clinical combination which makes the diagnosis of intracranial tumour inevitable. The peculiarity of the above history is that these symptoms were spread over a long period of time, and that the decline of the early events coincided with the onset of diplopia, disturbed gait, and defective vision. The postponement of the last symptom does not necessarily mean that optic neuritis was equally late in development. For the presence of double optic neuritis is quite compatible with efficient sight, and it is when atrophy supervenes, rather than during the active stage of exudation, that the patient's vision suffers. In view of the diagnosis of intracranial tumour it is of especial interest to notice the patient's present condition. She has a somewhat ataxic gait, and her vision is defective, but otherwise, save for an occasional headache, she enjoys good health. The decline of the symptoms must necessarily mean a decline of the factor causing them. It cannot, of course, denote disappearance of the tumour, but rather that the tumour has ceased to grow, and that with this, the congestion and irritation which exist in the neighbourhood of a growing tumour have abated. This conclusion is noteworthy in itself, and it bears upon treatment. The circumstances oppose rather than suggest any operative interference. The patient has good general health, and is able to enjoy life; how far her vision will permanently suffer it is impossible to say, but to trephine the skull with a view to improve her sight would be useless, as the condition is now one of optic atrophy, and not of acute neuritis; the risks of an operation are not slight; and, lastly, there is no certain guide to the exact localisation of the tumour. It may be regarded as probable that the growth is situated below the tentorium cerebelli, as such tumours often cause severe pain, much vomiting, and extreme optic neuritis, and the cerebellum is a relatively frequent site of intracranial growths in early life. Further, the girl shows nystagmus in all extreme positions of the eyes, and the knee-jerks are exaggerated, both of which symptoms are known to occur in cerebellar tumours. Again, the gait is of the character met with in disease of the middle lobe of the cerebellum, and as there is some degree of left facial paralysis, it would appear as if the tumour were for the most part to the left of the middle line, and thus able to press upon the left facial nerve. None of these facts in itself is sufficient to indicate conclusively the site of the tumour, and though taken together they establish a strong presumption, a degree of uncertainty yet remains. On such evidence, in the presence of acute and dangerous symptoms, an operation might reasonably be undertaken in the region of the left cerebellar fossa, but in the circumstance of the present case, the absence of conclusive proof of the site of the tumour may be added to the other considerations which suggest the wisdom of "letting well alone."

Examples of Functional Nervous Disease.

Two patients, each complaining of difficulty in walking, were shown, and the diagnosis as between organic and functional disease was discussed. Dr. Taylor emphasised the difficulty of giving in many cases a positive diagnosis of functional disease, more especially when the patient is seen for the first time. Frequently it is found that behind undoubtedly functional symptoms there is a basis of organic disease, which is, as it were, concealed by the obtrusive functional phenomena. Hence the advisability of proceeding with great caution, and only after repeated examination, before definitely framing a diagnosis and prognosis based on the view that the condition in any given case is of a purely functional nature. It may even be necessary in some instances, before pronouncing a final verdict, to keep the patient under continuous observation, as in a nursing-home or hospital. Here the effects of rest and of absence from the ill-advised sympathy of friends can be estimated, and the possibility of error be thus reduced. In all cases in which the question of a diagnosis of functional nervous disease is raised, too much care can hardly be taken. To pronounce such a diagnosis when the condition is really one of organic disease is a most serious mistake, as it involves gross injustice to the patient, misdirects treatment, and sooner or later brings great discredit on the physician. In many cases the recognition of organic disease in the nervous system can be made readily and with confidence. But a confident diagnosis of a case with nervous symptoms as purely and solely *non*-organic or functional, ought only to be made after thorough and repeated examination and careful and anxious deliberation. In the two cases now to be reported there is a strong presumption that in each the condition is purely functional. But both patients are to be admitted to hospital with a view to the continued observation necessary to establish a secure diagnosis, and also to detach the patient from influences which confuse the issue, and which, so long as they exist, render patients with functional nervous disease almost incapable of cure.

The first patient was a woman of 27 years. Her left arm and leg were the site of very marked and continuously sustained tremor. She walked in a decidedly helpless fashion and complained of great weakness, especially of the left leg. The condition was reported to have been present for nine years. Examination failed to detect any undoubted sign of organic disease. The tremor, it was pointed out, was of an anomalous character, and the entire clinical picture of the case did not accommodate itself to any known type of organic nervous disease. The long duration of the symptoms, without the development of evidence of gross changes in the nervous system, furnishes an additional argument in favour of a diagnosis of functional disease.

The second patient, a man of 36 years, displayed a most extraordinary gait. Entering the room with short hurried steps, and supported by his wife, he made occasional rushes forward, as though he would fall on his face; under persuasion he could be tempted to take a few apparently normal strides, but promptly resumed his peculiar short-stepping, tremulous gait. Here again tests for objective evidences of organic disease were entirely negative. There were no disturbances of the ocular movements, the pupils had their normal reactions, the fundus oculi on each side was normal, there was no paresis of the face or limbs, sensation was undisturbed, the knee-jerks were active, and though a slight pseudo-clonus could be obtained at the ankle, the plantar reflex gave a flexor response in all the toes (absence of Babinski's sign). The character of the gait was itself a ground for suspicion, and the above results of examination deepened that suspicion. Two reported incidents in the case gave some room for further consideration. The first was an attack of diplopia, stated to have occurred some two months ago, when the peculiar gait first developed, and dependent, according to a medical observer, on paralysis of the left external rectus muscle. The second, a statement that on one occasion the patient had passed his urine involuntarily. Neither of these events, however, is conclusive, as occasionally attacks of double vision and temporary loss of control of the sphincters both occur in the course of purely functional nervous disease. The only point in the history having a possibly explanatory significance is, that shortly before the appearance of the symptoms the patient received an injury to his right arm, and that in connection with this a claim for compensation may perchance arise. Such a statement, however, must not be allowed to bias the discussion. The diagnosis must rest on the facts of the case, and not on suspicions arising out of a particular view of the patient's circumstances.

A Case of Lateral Sclerosis.

In this patient—a man of 39 years—there was also a complaint of some slight difficulty in walking. This was traced back to an attack of influenza some nine years ago. As now seen, the patient's gait has a degree of stiffness or spasticity, but at times the right leg is stated to be "weak," and the toe to catch against the ground. The only other reported symptom is pain in the back. Examination left no doubt that the peculiarity of gait was dependent on definite organic disease. The knee-jerks were excessive, there was some measure of ankle clonus, and stimulation of the sole gave an extensor response in the big toe (Babinski's sign). These facts showed the presence of a slight degree of sclerosis in the lateral columns of the spinal cord. In the face of such a diagnosis it is imperative to consider the possibility of disease of the spinal column, but in the present case there was no evidence of such disease. There remains the question whether the case is one of purely lateral sclerosis, or whether it is one of disseminated sclerosis, with the site of degeneration mainly in the lateral columns of the cord. Experience shows that not a few cases which commence—and perhaps remain for long periods—with symptoms of lateral sclerosis only, afterwards develop evidences of the presence of multiple sclerosed patches scattered widely through the brain and spinal cord. In the present case, there was detected, on extreme deviation of the eyeballs to the left, a slight amount of nystagmus, which must be regarded as indicating with great probability a diagnosis of disseminated sclerosis. Dr. Taylor drew attention to the long duration of the symptoms in this patient, as illustrating one aspect of the clinical picture of disseminated sclerosis. Here is a patient who for nine years has had some stiffness in his lower limbs known to be due to sclerosis of the lateral columns of his spinal cord, and yet, even now, his disability is but slight, and the detection of nystagmus by no means proves that the evolution of events in the future is likely to be more rapid. There is, however, another side to the picture. In this widespread symptoms of disseminated sclerosis develop rapidly, in the course perhaps of a few months. And between these two extremes there are all possible gradations. The present case has thus a relatively good prognosis, and the most important feature of the treatment is to warn the patient against anything like excessive use of his limbs.

Regarding the essential pathology of lateral sclerosis, it is probably due to degenerative changes in the pyramidal cells of the cerebral cortex.

These changes prejudice the nutrition of the upper motor neurons, and as a result the most distal part of the neurons, that is, the lateral columns of the spinal cord, become sclerosed. In parallel fashion degeneration of the cells in the anterior cornua of the spinal cord produces defective nutrition in the lower motor neurons, and this expresses itself in the form of impaired vitality in the structures at the peripheral termination of those neurons, viz., the muscles. Hence the disease progressive muscular atrophy. Should cerebral and spinal centres alike suffer, there will be a combination of the symptoms of lateral sclerosis and muscular atrophy, producing the clinical condition known as amyotrophic lateral sclerosis.

Hemicrania and Third Nerve Paralysis.

The patient whose case is reported in the February number of the Polyclinic, p. 76, was again exhibited, in order to show that the ptosis had completely disappeared. Unfortunately this does not remove the fear that the paralysis will recur, and with each recurrence there is a growing risk of it becoming permanent.

BY C. O. HAWTHORNE, M.D., M.R.C.P.

Tuesday, March 3, 1903.

A Case of Ataxic Paraplegia.

Gentlemen,—The objective signs of organic nervous disease in this case, though not numerous, are very conspicuous, and the question presented for solution is the meaning to be attached to these signs. In the first place the patient, a man of 38 years, has, as you see, an extremely disturbed gait; indeed, unless he is supported on either hand, he cannot walk at all. Yet when tested in the sitting posture there is no considerable loss of power in the lower limbs, and only a slight degree of muscular rigidity. The inability to walk, therefore, cannot here depend on paralysis (in the ordinary sense of that term), or on a spastic state of the muscles. The only other explanations open to consideration are, unwillingness to walk, as a form of malingering or of hysteria; or loss of the ability to co-ordinate the muscular operations on which a healthy gait depends. As in other arts, walking requires not only muscular power, but also the skill or ability to direct this power in a particular fashion. Hence, difficulty in walking may be due either to loss of power (paralysis), or to loss of the capacity to organise the co-operative action of the necessary muscles (ataxia). In the present case there is, for reasons which will presently appear, no question of malingering or of functional disease, and as the patient's limbs are neither powerless, nor rigid from spasm, it is a necessary conclusion that his disability is of the nature of ataxia. The character of the gait, indeed, suggests this explanation. It is high stepping, stamping, and somewhat tumultuous, and the patient when deprived of support does not tend to "collapse in a heap," as in paralysis of the lower limbs, but sways to and fro, and unless supported would fall to one or other side. It is this condition of extreme ataxia which is the most conspicuous feature of the case. The other positive signs of nervous disease are exaggeration of the knee-jerk, ankle clonus, Babinski's sign, and slight muscular rigidity in each lower limb. In all other respects the clinical investigation of the nervous apparatus gives negative results. Now the significance of the series of facts just mentioned is a very precise one. Ankle clonus and Babinski's sign are, in the first place, sufficient to exclude absolutely the diagnosis both of malingering and of functional disease. Further, they show, without question, the existence of organic disease in one definite part of the motor tracts, namely, in that part of the tracts which is above the level of the cells in the anterior cornua of the spinal cord (upper motor neurons). And disease involving this part of the motor tracts will also account for the exaggerated knee-jerks and the muscular rigidity. Thus it is beyond dispute that there is a lesion involving that part of the upper division of each motor tract which is associated with the movements of the lower limb.

Now it is conceivable that the lesion may be placed at any level of the upper divisions of the motor tracts. Theoretically, at least, it may involve the tracts either in the brain, the medulla, or the spinal cord. In children, a condition of spastic paraplegia and exaggerated tendon phenomena—one of the forms of the so-called "birth palsies"—commonly depends on damage, possibly inflicted during parturition, to the leg centres situated at the upper extremity of each Rolandic fissure. The present patient, however, is an adult, and experience is against the suggestion that exaggerated tendon jerks and muscular rigidity in adults depend on a cerebral lesion similar to that which is the frequent cause of these conditions in early life. Further, serious damage to the leg centres would produce a greater degree of spasticity and paralysis than we find in our patient. We may therefore put on one side the possibility of a lesion destroying the leg centres in the cerebral cortex. Again, it is possible that a cerebellar tumour, by pressure on the motor tracts as these pass through the medulla, may interfere with the functions of the lower limbs. Such tumours, even apart from pressure on the medulla, are sometimes attended with exaggeration of the knee-jerks, and with an ataxic gait. In the present case there is not the slightest evidence of the existence of an intracranial tumour, and it is in the highest degree unlikely that a cerebellar growth would involve to an equal extent both motor tracts in such a way as to produce spasticity and heightened tendon phenomena with little or no paralysis. There remains therefore the spinal cord, and the conclusion that in this patient it is here the upper divisions of the motor tracts are diseased, is supported by the fact that in adults sclerosis of the lateral columns is the usual cause of exaggerated tendon phenomena and muscular spasticity in the lower limbs. To this point the diagnosis is a fairly confident one, namely, that the patient is the subject of sclerosis in the lateral columns of his spinal cord. But such a lesion will not explain the ataxia. Hence it is necessary to enlarge the diagnosis, so as to include the posterior columns of the cord. For it is by nerve fibres which pass through these columns that nerve impulses are conveyed from the muscles to the motor cells in the anterior cornua. Such impulses are essential to the co-ordinate activity of the several parts of the motor apparatus engaged in the act of walking. Their absence therefore leads to inco-ordination. Hence, whilst spasticity and increased tendon phenomena point in our patient to sclerosis of the lateral columns, the ataxia signifies a similar condition of the posterior columns, and the complete anatomical diagnosis is one of combined sclerosis of both lateral and posterior columns.

The pathological diagnosis, that is the cause of the spinal sclerosis, is much more uncertain. There is neither history nor evidence of syphilis, and, as a matter of fact, the disease known as ataxic paraplegia cannot in the majority of cases be placed in the list of post-syphilitic events. The patient himself attributes the commencement of his symptoms to exposure to cold and wet—influences which have come under suspicion in other cases of the same order. The onset of the condition, which dates from some eight or nine months ago, was marked by a very troublesome and long persisting diarrhœa. A similar state of matters has been noted in other cases of this group, more particularly in those which pursue a somewhat acute course. Possibly the complete natural history of "ataxic paraplegia" will, when it is known, throw doubt upon the theory of a primary sclerosis. For us just now it is sufficient that our patient exhibits the evidences on which we are justified in concluding that both the lateral and posterior columns of his spinal cord are the site of disease. The prognosis, more especially in view of the comparatively rapid development of the case, is the reverse of hopeful. Treatment has followed the usual lines and has included an attempt to educate the lower limbs by regulated exercises; it has not, as you see, been attended with any considerable measure of success.

Paraplegia from Spinal Disease.

This is another example of disturbed gait, but of a very different character from the case just discussed. There is here obvious weakness or paresis of the muscles. This is seen both in the man's gait and when he is asked to move his limbs against resistance. The patient is 37 years of age, and has been conscious of increasing weakness in his legs for a period of eight months. This is his sole ground of complaint. Yet, and this is the chief feature of interest in the case, he is without question the subject of disease of his spinal column. When his back is examined a prominent, abnormal, and somewhat acute projection is seen in the line of the spinous processes in the lower dorsal region. Thus we have a very emphatic illustration of the necessity of always examining the back in cases where the patient has any difficulty in walking. In this instance we find an immediate explanation of the weakness of the lower limbs, and an explanation, too, of the existence of which the patient had no suspicion. Somehow or other the disease of the spine has interfered with the apparatus by which nerve messages normally reach the muscles of the lower limbs. It is to be noted that the limbs are not in any degree rigid. On the contrary, the extensor muscles of the thighs are flaccid and more or less wasted, and the knee-jerks are lost. These facts do not suggest pressure on the spinal cord as by a large collection of pus. Such a condition tends rather by pressure on the lateral columns to produce muscular spasticity and exaggeration of the tendon-jerks. The indications here are of damage to certain of the anterior (motor) roots of the spinal nerves, and the affected level is such as to specially involve the large extensor muscle of each thigh, and to break the reflex arc on which the knee-jerk depends. Before considering any more heroic measures it will be right to see what benefit may be obtained from rest in the recumbent posture.

SURGICAL CASES.

BY REGINALD HARRISON, F.R.C.S.

Wednesday, February 25, 1903.

Radical Cure of Encysted Hydrocele.

This patient was shown to illustrate the radical cure of encysted hydrocele by excision of the sac. Mr. Harrison advised this method—when tapping the hydrocele had proved unsuccessful—in preference to the injection of iodine or other irritating agent. A point in which excision can claim a great advantage is the rapid and painless healing of the wound. The patient shown to the class had only been operated on a week previously, and already the wound was satisfactorily cicatrized, and the man himself quite well.

The modern method of treating wounds has completely revolutionised and simplified the radical treatment of all forms of recurring hydrocele. The injection of iodine or similar substance for the purpose of obtaining a radical cure is often followed by much swelling, occasionally by suppuration, and not rarely by a more or less tedious convalescence. Where the tunica vaginalis is very thick, tapping and injection not infrequently fail altogether. During a recent visit to Egypt where hydroceles are very common, Mr. Harrison had been much impressed by the excellent and rapid results obtained by removal of the sac, as practised by Mr. Madden at the Cairo Hospital.

Two Examples of Internal Urethrotomy.

In demonstrating two cases of bad and almost impassable stricture, which had been operated upon by internal urethrotomy after Maissoneuve's method, Mr. Harrison laid stress on the importance, after the operation has been completed, of leaving the bladder fairly full of some antiseptic fluid, such as boracic lotion, or a weak solution (1 in 10,000) of perchloride of mercury. In this way rigors and fever are often prevented, particularly on the earlier occasions of voiding urine. Mr. Harrison seldom finds it necessary to tie in a catheter after internal urethrotomy, and he attributes the rarity of serious after-symptoms to this simple method of temporarily sterilising the urine. It is the early rigors that have to be apprehended in all lesions of the urethra. Mr. Harrison also adopts this plan, namely, filling the bladder with an antiseptic, after sounding for stone and other manipulations of the kind where rigors are liable to occur.

A Case of Bilharzia Hæmatobia.

The urine of this patient was centrifugalised, and specimens placed under the microscope. When this was done abundant bilharzial ova in various stages were readily recognised. The patient, a soldier aged 25 years, had recently returned from South Africa, where the disease is not uncommon. The only symptoms in the case were a small amount of blood in the urine at the close of micturition, and increasing evidences of anæmia. Mr. Harrison reminded his audience that this disorder was by no means infrequent in England. He had recently seen at least half a dozen cases himself, and had heard of many others. They were, he believed, imported from South Africa and Egypt. He therefore advised practitioners to be on the look out for this explanation in cases of hæmaturia that might come under their notice. He also directed attention to a very admirable paper by Dr. Loos read at the recent Cairo Medical Congress. In this the author expressed his opinion very confidently that, as in the case of ankylostomiasis, the parasite enters the body through the skin. It was further stated in this discussion that hæmaturia from this cause could be to some extent controlled by doses (15 to 25 grains) of extract of male fern.

BY W. H. A. JACOBSON, M.CH.

Thursday, February 19, 1903.

Inguinal Hernia associated with Narrow Meatus Urinarius.

A BOY of three years was brought with a history of "a rupture," observed soon after birth, and for which he had been wearing a truss. Recently the truss had been discontinued, without any reappearance of the hernia. The question had been raised whether a radical operation should be performed. Examination of the boy detected nothing abnormal (he had been circumcised in infancy) except a very narrow meatus urinarius. This latter condition Mr. Jacobson pointed out as competent to produce the same results in reference to strain and the state of the urinary apparatus as those which follow a small preputial orifice, and he advised that the meatus should be incised or dilated. If in spite of this the hernia should reappear, the question of further treatment by means of a truss or operation would have to be considered. In young children an operation for the cure of hernia can hardly be entered on with a light heart. The hernial sac is usually very thin and is not easy to find; with a congenital hernia the sac is sure to be closely associated with the structures of the spermatic cord, and these are very delicate and readily injured; the conjoined tendon, which must necessarily be included in the operation, is only slightly developed and is not easily defined; and, lastly, there is the risk of sepsis due to fouling of the dressings by the urine or fæces. Speaking on the general question of radical operation for the relief of hernia, Mr. Jacobson said that whilst it is true that in many cases a cure could be promised—granted that the patient will submit to the necessary discipline—there are other cases in which operation may give some relief, but will certainly not produce a "cure," and a third group exists where the condition will be aggravated rather than improved by interference. In the case of a young and healthy adult, with well-nourished tissues, the sac easily found, the several layers of the abdominal wall in their normal relations to one another, and the inguinal canal existing as a definite oblique passage, a radical operation offers every prospect of success, provided the patient is content to adopt a policy of rest for at least two months. Failure in such a case, indeed, is a serious reflection on the surgeon. But to an adult of 40 years or more, with a pendulous belly, and the tissues at the site of operation weakened and dislocated by the protrusion of a large hernia, it is not permissible to speak of cure, in the sense that the hernia will be removed, and the use of a truss rendered unnecessary. The hernia will be reduced, and the patient may be fitted to wear a truss in comfort and safety, but to speak of a radical cure in such a case is hardly honest. In other cases, again, the general state of the patient makes him an unsuitable subject for operation, and the local conditions of the involved parts render the prospect of improvement practically inappreciable. In such circumstances operation should be refused, and the patient be advised to be content with trusses, adapted respectively for use during the day, night, and in his bath.

Tuberculosis of the Testicle.

A man of 44 years presented himself with a swelling in his right testicle. The swelling was first noticed some six weeks ago. On examination, the lower right scrotum was found to be the site of a sinus, said to have been in existence for ten days, and to have discharged "yellow matter and some blood." The scrotum was adherent to the right testis. A nodule the size of a marble was felt in the globus major, the body of the testicle was unduly hard, and the structures in the right spermatic cord were much thickened. The left testicle was somewhat atrophied, and there was considerable enlargement of the prostate gland, probably "senile." The involvement of the epididymis necessarily suggested either a gonorrhœal or a tubercular epididymitis. There was neither history nor evidence of a recent urethritis, and this, taken together with the other facts, concluded the diagnosis as one of tubercular testis. The age of the patient, it was remarked, was somewhat more advanced than the majority of the sufferers from this condition, tuberculosis of the testicle being for the most part an affection which occurs during active sexual life. It is probable, therefore, that in the present case the progress of events will be slow. This probability is strengthened by the absence of any evidence of tubercular disease in the other parts of the genito-urinary apparatus, though it must be allowed as possible that tubercular nodules may exist beyond the reach of detection, as, for example, in the deeper parts of the hypertrophied prostate. In such a case—presuming for the moment that operation is not undertaken—the patient should be examined at frequent intervals; no single observation can support such an extensive conclusion as the entire freedom of the prostate, vesiculæ seminales, &c., from tubercular infection.

Tubercular disease of the testicle, as a rule, begins in the epididymis, and in the great majority of cases there is in the early stage only a single focus of the disease. Its local progress is generally slow, and the extension of the disease to other parts is, in the majority of cases, delayed. The patient becomes aware of the presence of a small nodule in one of his testicles, and as this causes him little or no discomfort, he does not usually consider it of any great moment. The surgeon ought to take a very different view of the position, and this for several reasons. In the first place, it does occasionally happen that the disease develops rapidly, and that at an early date the vesiculæ seminales, bladder, prostate, and even the kidney, become involved. Secondly, there is the fact that if recognised at the outset an epididymectomy may be sufficient to remove the disease and to delay or even to prevent its extension to the body of the testicle or bladder, &c., whilst delay will mean, at the best, so serious a proposition as the removal of the testicle. Thirdly—and this is not sufficiently appreciated—statistics show that in a large proportion of cases the second testicle becomes attacked. This may occur after an interval of several years, and if the one testicle has already been removed, it involves the question of complete castration. To such a proposal patients naturally have a strong objection. But it is probably the best course to pursue. The only alternative is an exploratory incision with a view to see whether an epididymectomy appears to be sufficient to remove the area of the disease. Such an operation will, of course, make the patient sterile, but will not render him completely impotent, and when the disease appears to be limited to the epididymis, it may be performed as an alternative to castration. There is necessarily some risk, as it is never easy in such circumstances to say that the testicle is entirely free from tubercular disease. Thus a tubercular focus may be left behind, and may at any time blaze into activity. The risk is all the greater, because tuberculosis of the testicle does not always exist in the form of definite nodules, but is found at times as a fibrous granulation tissue containing bacilli and widely diffused though the substance of the corpus Highmorianum. In such a form the disease may be entirely latent, and may fail to give any appreciable signs which would warn the surgeon of its presence. The safer proceeding is certainly to remove the testicle, even though the disease to ordinary examination appears to be entirely localised in the epididymis. At the same time it must be recognised that such an operation—and especially when only one testicle remains—will excite the strongest possible objection, and it may therefore be permissible when only a single focus of disease is present, and this is strictly confined to the epididymis, to be content, at least in the first place, with an epididymectomy.

BY JONATHAN HUTCHINSON, JUNR., F.R.C.S.

Thursday, February 26, 1903.

Multiple Gummata of the Scalp.

THE patient was a woman of 27 years. She first became aware of the presence of "lumps" on her scalp some seven months ago. The conditions found on examination were as follows: Behind the left ear, but not involving the auricle, was a considerable area where the scalp tissues were much thickened; this at numerous points showed small ulcers from which exuded a gummy discharge. At the vertex was a large circular ulcer measuring about an inch in diameter, with a raised and thickened edge, and also discharging gummy material. Several smaller ulcers were found over the parietal regions. In addition to the ulcers the scalp also presented a number of rounded tumours. These could not be moved freely on the bone, and thus appeared to take origin in the pericranium. The largest of them involved the skin, and in these fluctuation was readily detected. There could be no doubt that it was by the softening and breaking down of such tumours that the ulcers just described had been formed. Regarding the diagnosis, Mr. Hutchinson had no hesitation in pronouncing the case to be one of tertiary syphilis. The multiplicity of the tumours, the fact that they were confined to the one tissue (the scalp), and the comparatively early occurrence of ulceration, suggested this diagnosis. And of very great significance is the character of the discharge from the ulcers. Mr. Hutchinson drew particular attention to this as almost distinctive, even apart from other facts, of tertiary syphilitic ulceration. He quoted a rare case of mycosis fungoides of the scalp in which also the discharge had a gummy character, but with this exception he could not recall a single instance of ulceration giving rise to such a discharge apart from cases of specific disease. A question was raised whether the present case might not be one of multiple sebaceous cysts. In reply it was pointed out that the attachment of the tumours to the pericranium was opposed to such a diagnosis; that the thickened and ulcerated area behind the ear in no way resembled a sebaceous cyst; and that ulcers having such an origin have a discharge of an extremely offensive character. The patient's history appeared to be free from anything suggesting secondary symptoms. She had been married three years, and had had one child, who had died when seven months old. All this as negative evidence does not touch the facts as above described. Their character calls for full doses of potassium iodide, which, in the course of a few weeks or months, will doubtless, from the therapeutic standpoint, confirm the diagnosis now based upon clinical facts.

Gummata of the scalp commence for the most part in the pericranium, and tend, as here, to break down and ulcerate. In some instances they erode the outer table of the bones of the skull, and in this way may produce shallow, saucer-shaped depressions, which can be felt through the scalp after the gummata have been absorbed. It is rare for the internal table to be either eroded or even thickened, and hence cerebral symptoms as a result of tertiary syphilis of the scalp are quite exceptional events. Mr. Hutchinson quoted a case in which the skull was perforated by the disease, with the result of intracranial abscess and death. Another fact to be observed about syphilis of the scalp is that its manifestations are usually most severe and abundant over the anterior part of the skull. The parietal region is a less frequent site than the frontal area, and over the occipital bone gummata are rare.

There is exhibited in the above case an illustration of what is a frequent experience in tertiary syphilis, viz., the restriction of the gummata to one particular tissue. In the present instance they are confined to the scalp. In some cases they are more or less widely distributed over the skin, but rigorously confined to the integumentary tissues. In others, again, the nervous system, or the periosteum, or the liver, is the site of the development, and sometimes the very rapid development, of gummatous growths, the other parts of the body remaining free from evidences of the disease. This is a fact in the natural history of syphilis which it is not easy to explain, and, indeed, no satisfactory theory regarding it has been suggested.

A Case of Multiple Lupus.

This was an example of numerous lupus patches occurring almost simultaneously in early childhood, and a number of them undergoing spontaneous cicatrization. The patient is now 18 years of age, and still shows the disease in an active phase on some parts of the face. On the cheeks, however, and also on the forearms and knees, are very delicate superficial scars showing the position of former ulcers. Mr. Hutchinson drew attention to this tendency to spontaneous healing in many of the patches when lupus appears in numerous areas at or about one and the same time. This fact contraindicates, in such circumstances, the active use of powerful caustic or other destructive agents.

Aneurism of the Right Common Carotid.

The patient was a woman of 53 years. She complained of a sense of beating or throbbing on the right side of her neck; this had been present for eight months. The fact of an aneurysmal dilatation of the lower part of the right common carotid artery was conspicuous. No thrill could be felt over the tumour, nor was there any bruit to be heard, and this was held to warrant the belief that the aneurysm was a fusiform, and not a sacculated one. It is where the sac of an aneurysm communicates with the lumen of the artery by a narrow orifice that a thrill becomes prominently developed and a loud bruit can be heard. In reference to treatment, Mr. Hutchinson said that carotid aneurisms have frequently a very chronic course, and he would advise that in the present instance nothing should be done. If signs of active extension appear, it may be necessary to operate by ligature of the vessel on the distal side of the sac, but such an operation carries the risk of producing right cerebral softening and consequent left hemiplegia. Of this it would, of course, be necessary to warn the patient beforehand.

Thursday, February 12, 1903.

Examples of Chancres.

A MAN of 30 years, sent by Dr. Salisbury, presented a small chancre on each side of the frænum, and well-marked induration of the glands in each groin, but without any appreciable thickening of the lymphatic trunks. In reference to chancres in the region of the frænum, Mr. Hutchinson remarked that they are apt to be overlooked by the patient, and may, unless care is taken, escape the observation of the surgeon. Sometimes a sore extends across the middle line under the frænum, and it may be necessary to divide this in order to secure cicatrization. Occasionally patients object to this procedure under the belief that it will interfere with the capacity for sexual intercourse.

Another interesting case of chancre was sent for demonstration by Dr. Purdie. The patient, a youth, had on the right side of his lower lip a rounded sore of considerable size, hardly raised above the surface, and having only a very moderate degree of induration at its base. The method of infection could not be traced. Attention was drawn to the following points:—(1) The frequency with which chancres on the lip are not diagnosed. The unusual situation and the absence of anything like typical induration are the factors probably responsible for these serious errors. In the College Museum may be seen several illustrations of extra-genital Hunterian chancres, the true nature of which had been for some time entirely overlooked. (2) The absence of marked induration, as in accordance with the usual rule for chancres in this situation. (3) The presence of much enlarged glands in the submaxillary triangle, forming a very conspicuous bubo. The lymphatic glands in this situation are normally very small. They receive the lymphatic vessels from the lower lip; and a sore on the lip, therefore, usually produces a considerable submaxillary bubo. It follows that in a case of epithelioma of the lip operation should include a thorough and careful clearing of the submaxillary triangle. On the other hand, the relation of the lymphatics of the tongue is with the glands along the carotid artery. This fact was demonstrated in a patient sent by Dr. Sequeira. The man was the subject of malignant disease of the tongue and floor of the mouth, and it was observed that whilst the glands in the submaxillary region were not appreciable to palpation, there was considerable enlargement of those along the course of each carotid artery. (4) Chancre of the lip is obviously, from its situation, full of risk to those brought into association with the patient, and therefore it is essential that very strict precautions to prevent infection should be adopted. In addition, prompt mercurial treatment should be instituted, and it is a good plan to advise that some simple dressing—for example, a mild mercurial ointment applied on lint—should be kept on the sore. The latter procedure draws attention to the sore, and may thus warn those who have dealings with the patient, even though they do not fully appreciate all the dangers of infection.

A Case of Bazin's Disease.

The patient was a girl aged 18 years. She is a cigar maker by trade, and sits at her work. During the last eighteen months she has been troubled with large ulcers on the lower part of each leg, but otherwise enjoys good health. In reference to the diagnosis it was noted (1) that there was nothing either in the patient's physiognomy or the family history to suggest hereditary syphilis; (2) several near relatives had suffered from phthisis pulmonalis; and (3) there were no varicose veins in the lower limbs, and the patient's occupation does not compel her to stand. In addition, are to be observed the long duration of the ulcers, the dusky surface and raised indurated edge, and, of great significance, the presence of purplish red patches in the neighbourhood of the ulcers, but isolated both from the ulcers and from one another by intervening areas of apparently healthy skin—the "indurated erythema of the tuberculous." Even so late as a few years ago this condition would undoubtedly have been diagnosed and treated as a manifestation of hereditary syphilis. It is now properly placed among the tuberculous affections, even though inoculation of the discharges from the ulcers has, so far, failed to give positive results. The treatment advised for the patient was rest in bed, a plentiful supply of fresh air, generous diet, tonics, and the application of a weak ointment of red oxide of mercury or chinosol—5 to 10 grs. to the ounce. (This patient was sent for demonstration by Dr. Sequeira.)

Thursday, January 29, 1903.

Notes on Chancres.

Regarding chancres on the penis it may be stated, as a general rule, that (1) when affecting the meatus urinarius they tend to form a ring surrounding the orifice; (2) those situated entirely on the glans penis present comparatively little induration; and (3) the most characteristic features of the true Hunterian chancre are seen in the sores which develop in the furrow immediately behind the glans.

In a large proportion (40 to 50 per cent.) of penile chancres, it is possible to detect distinct induration of the lymphatic trunk vessels.

A chancre situated to one side of the middle line of the penis may lead to the production of a bubo in the groin, not of the same, but of the opposite side.

Hypodermic Injection (Mercurial) in the Treatment of Syphilis.

As a routine practice, and in the majority of cases of syphilis, the hypodermic use of mercury is neither necessary nor advisable. Both the intravenous method, and the hypodermic injection of corrosive sublimate, are, indeed, full of risk, and are to be discountenanced. There are, however, certain cases in which recurrences are frequent and the more usual forms of mercurial treatment are not successful, and in these the hypodermic method may be practised, not without hope. The best preparation is calomel in sterilised olive oil. Each administration must be conducted under the strictest precautions. The skin must be cleansed, first with alcohol and then with solution of carbolic acid, and each injection should be separately sterilised. The dose of calomel is 1½ grains given once a week. The site of election is the buttock, the injection must be intramuscular, and the only unfortunate effect is an occasional complaint of subsequent aching in the limb. It must be admitted as somewhat strange that so small a dose as 1½ grains of calomel can prove efficacious, more especially in a case where much larger doses given by the mouth or through the skin have failed. None the less the statement is true. Mr. Hutchinson has observed the success of the treatment in a number of cases having the characters above stated, and has been particularly impressed by its value in instances of obstinately recurring ulcers of the tongue. A therapeutic parallel may be found in the use of quinine in malaria. In the great majority of cases, quinine by the mouth is quite successful. A few prove resistant, and some of these, at all events, have been found to respond readily to small doses of the remedy given by hypodermic injection.

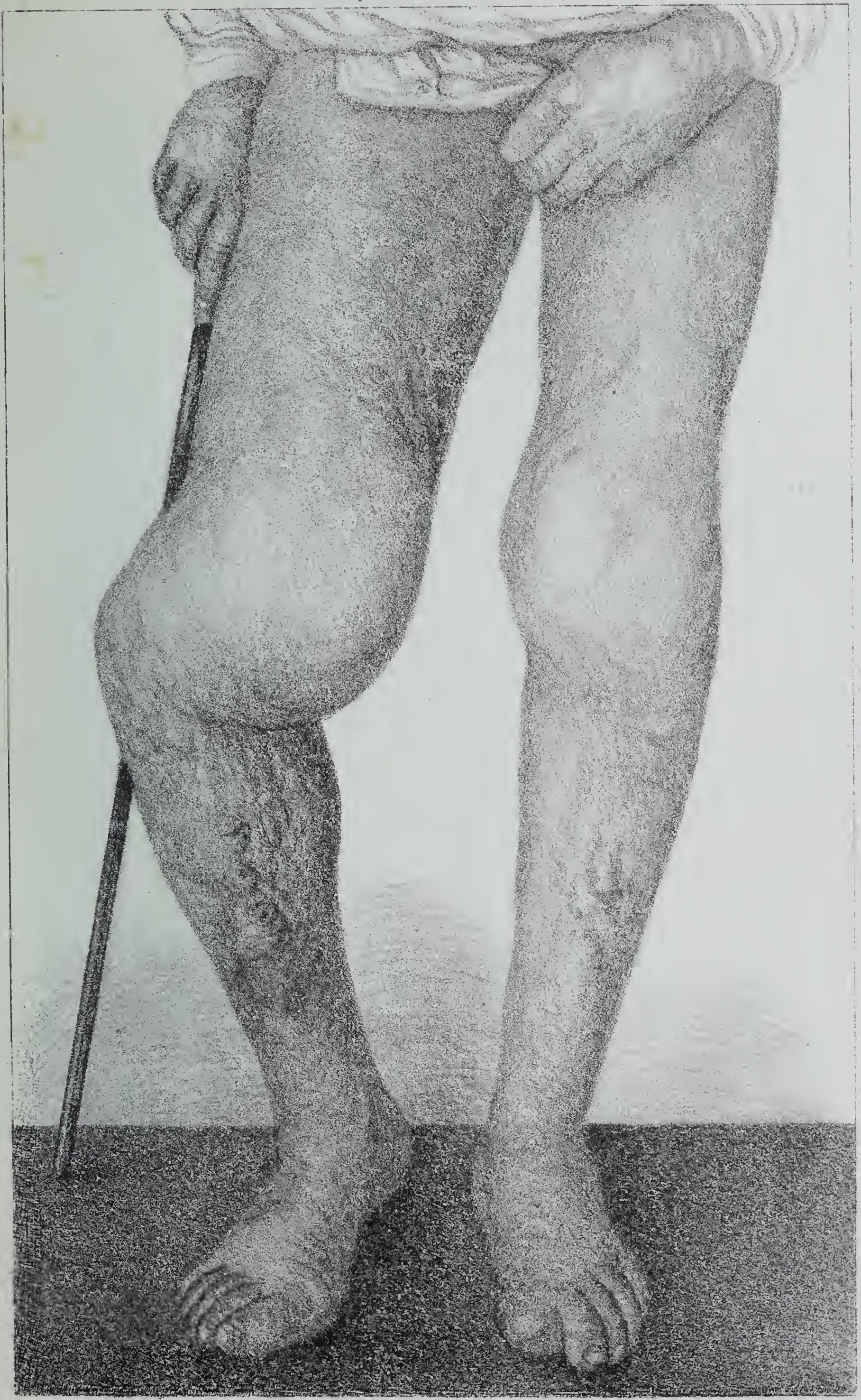
BY C. R. B. KEETLEY, F.R.C.S.

Thursday, January 22, 1903.

An Example of Charcot's Joint Disease.

The characters of the knee-joints in this patient—a man of 60 years—are successfully represented in the accompanying illustration. Each knee-joint, but more particularly the right, is much enlarged and deformed, and there is considerable thickening of the bones. The changes which have occurred, however, have not all been in the direction of formation of new tissue, for there is an undue amount of lateral movement at the joints, due probably to partial absorption of the articular ends of the bones. This can be appreciated both in passive movement and also when the patient walks. His gait is clumsy and "shambling," but does not cause him very serious inconvenience; it is quite unattended by pain. These facts alone are sufficient for a diagnosis. The joints affected, the combination of enlargement and thickening with evidences of absorption of bone, and the absence of pain, unite to make a clinical picture of Charcot's disease. To these has to be added the statement that the condition has been in the course of development for at least fifteen years. And if any doubt should still exist, it would be resolved by the patient's history. Thirty years or more ago he suffered from syphilis, and under treatment made a good recovery. After a few years, however, an ulcer developed on the sole of the great toe, and all attempts to induce it to heal failed. He was therefore admitted to the Middlesex Hospital, where he was told that the ulcer was a "perforating" one, and ultimately the toe was amputated. There have been no other symptoms of tabes dorsalis, unless it be that some pains in the lower limbs which preceded the enlargement of the knees were of the nature of "lightning" pains. Even now his general health is excellent —a statement which is amply confirmed by his appearance. And the only result of an examination of his nervous system is the discovery that the pupils are small in size and deficient in response to light. The history of the case well illustrates the extremely chronic character which may mark the course of Charcot's disease of joints. It affords a very striking contrast to the sudden onset which is one of the features of the disease. Usually, with little or no warning, the joint becomes greatly swollen, with œdematous or brawny swelling of the neighbouring tissues, but without heat, pain or other signs of inflammation. When the acute swelling subsides, there is more or less evidence of destructive change in the joint, proceeding possibly to such a degree as to lead to dislocation. At a later date there is thickening of the bones by new formation of osseous tissue, and this, as in the present case, may be the predominating feature, with the result, that whilst there is great deformity, function is by no means entirely destroyed. The present patient has doubtless been favourably situated in reference to food, clothing, and other influences bearing on his general health, and the relatively satisfactory state of his knee-joints must be largely attributed to this fact.

Another interesting aspect of the case is provided by the limitation of the evidences of tabes dorsalis to (1) some pains in the lower limbs; (2) perforating ulcer of the foot; (3) Charcot's disease affecting the knee-joints; (4) Argyll-Robertson pupils; and (5) absence of the knee-jerks. Further, the pupillary condition is not quite conclusive, and the state of the knee-joints may posssibly be sufficient to account for the absence of the tendon-jerks without calling to our aid the hypothesis of a nerve lesion. Hence, as an example of tabes dorsalis, the case may be presented as one in which the trophic aspects of the disease are the only ones which have gained any serious degree of development during the long period of thirty years. It may in addition be noted that all this, and a definite history of syphilis, are consistent with the enjoyment of good health, and with such a degree of activity as to allow the patient to earn a fair living by following his occupation as a banner painter. The one condition of which the patient complains is the state of his knee-joints. In other respects he enjoys a measure of health and energy about equal to what falls to the average man at the age of sixty years.



Mr. Keetley's Case of Charcot's Disease affecting both Knees.
The first toe of the left foot it will be observed, has been amputated.

E.Burgess del.et lith

Some Examples of Disease of the Hip Joint.

The first of these cases had a decidedly unusual feature. It was that of a man who, at 60 years of age, had been operated on in consequence of symptoms of hip-joint disease. At such a time of life, pain, stiffness, and limitation of movement at the hip, are for the most part regarded as "rheumatism" or "rheumatoid arthritis" and do not suggest operative interference. In the present instance, however, Mr. Keetley had made an incision in front of the joint and had found both the bursa under the psoas and the cavity of the joint filled with dark granular material; there was also erosion of the cartilage on the head of the femur. After all evidence of disease had been scraped away the joint had been fixed on a splint, and the subsequent progress of the case had been very satisfactory. Mr. Keetley showed and explained the splint used in the case. He applies it to all cases of disease of the hip joint and regards it as having certain advantages over Thomas's splint.

A second patient—a girl of 10 years—was shown with a very large superficial scar surrounding the cicatrised incision through which an operation had been performed for suppuration of the hip-joint. This was undertaken partly in consequence of extensive tubercular disease of the skin and subcutaneous tissue, which had been scraped away at the time of operation. Healing of the wound so produced had been secured by the use of skin grafts according to Thiersch's method. The same practice had been adopted in connection with the wound made for operation on the joint, and had been followed by prompt cicatrization. This Mr. Keetley referred to as a gratifying termination of a surgical dilemma. Necessarily after pus has been evacuated from the joint a drainage tube has to be left in the cavity. So long as this is present the sinus does not heal, whilst its withdrawal involves the risk of superficial closure of the sinus and re-accumulation of pus in the deeper parts. The use of skin-grafts as in the present case removes the difficulty, for it secures ready and sound cicatrization through the whole extent of the wound.

Mr. Keetley also discussed the differential diagnosis of hip-joint disease and coxa vara. He pointed out the similar limitations of movement produced by these two affections and also the correspondence between the early symptoms of each—a limping gait and pain, which latter, in coxa vara, as in hip-joint disease, may be referred to the knee. In each, too, there is not infrequently a history of injury. The diagnosis, apart from other points of distinction, may be made by attention to the following:—(1) Under an anæsthetic the limitation in the range of mobility of the limb in a case of hip-joint disease disappears, unless the case is an advanced one in which ankylosis has resulted. In coxa vara the restriction of movement is not very greatly modified when the patient is under an anæsthetic. (2) The X-rays in coxa vara will reveal the characteristic deformity of the head and neck of the femur. (3) Passive movements of the limb and manipulation of the joint in hip-joint disease cause the patient more or less severe pain, whilst similar procedures in coxa vara produce little or no complaint. In addition, it may be noted that the pain of hip-joint disease, though perhaps lessened, is not removed by rest in bed; to get rid of this and of the painful muscular startings which often cause so much suffering, fixation and extension of the limb by a suitable apparatus are essential. The pain of coxa vara, on the contrary, entirely ceases after rest in bed for one or two weeks.

LETTER FROM MR. HUTCHINSON.

Lahore,

February 27, 1903.

Dear Dr. Hawthorne,—I am now, I suppose, about half-way through my Indian tour. As was stated, I think, in a former letter, the best means of attracting public and professional attention to the leprosy question seemed to be to hold meetings for discussion. With the kindly-accorded help of the authorities of the Medical College in each place, I have now held such meetings in Colombo, Madras, and Calcutta, and a final one is fixed for March 19 at Bombay. At Calcutta it was said that 400 medical men and students were present, and the address was reported in detail in all the newspapers. As my mission is as much to the public as to the profession, I make no effort to restrict reporting, but, on the contrary, have won the praises of the interviewers by my willingness to answer their questions. Everywhere I insist that great care should be taken to avoid bad fish, that all fish should be well cooked, that no lepers should be allowed to touch food to be supplied to others, that no leper should ever be employed as a nurse for children, and, above all, that no leprous woman should nurse her own child, and that wet nurses should be most carefully selected. As you will know, the lepra bacillus has been found in human milk, and I have recently seen several instances of the disease in very young children in whom that mode of communication seemed the most probable one. Sir William Kynsey will be interested in this statement, for I know that he has long entertained this suspicion.

By diffusing information on these matters, and drawing widespread attention to their importance, it is my hope to effect a silent but not unimportant reduction in the number of the sufferers from leprosy in India, although possibly it may yet be long before the fish hypothesis secures general acceptance. This hypothesis is, I am convinced, definitely gaining ground. Several leading medical authorities in India have avowed themselves almost convinced, and the result of my enquiries here has been, as it was in South Africa last year, to utterly discredit not a few assertions which opposed it. I have now visited leper hospitals in all three cities which I have named, and in several other places, and nowhere do I encounter any real facts which invalidate it. On the contrary, I have been astonished on several occasions to find confirmation where I had expected difficulties. In the discussions which have followed my lectures, speakers have frequently mentioned what seemed to them strongly-opposed facts. Many of these I have been able to confute on the spot from previously collected statistical information, and others have vanished on subsequent enquiry.

Let me give you one example in illustration of these statements. At one meeting an objector told us that he had resided at Balasore, where they were engaged in fishing, and that there was little or no leprosy. I had by me a memorandum to visit Balasore for the express reason that leprosy is exceptionally prevalent there. In Calcutta I was repeatedly told that at the town of Purulia I should find a leper asylum with 500 inmates most of whom were from a hill plateau which had no rivers and where no fish was obtainable. This was urged so strongly, that although Purulia was not in my route, I determined to go there. I was most kindly received at the Leper Home by the Rev. Dr. Halm, a medical missionary. There were, I found, nearly 600 inmates. I asked especially to be shown any who said that they had not eaten fish. Dr. Halm replied "We have none who have not eaten it. They all eat it in these parts. It is not very abundant but all get some." This statement I subsequently confirmed by enquiry in the town, and by an inspection of a well-supplied fish market. I next asked for representatives of the hill tribes from the plateau which had been mentioned. The reply was "We have not more than two or three in the asylum; the rest are all Hindoos from the plains." I put a third query, as to whether any high-caste Brahmins, who are bound by their creed to be strict vegetarians, were in the asylum. Two such were produced, and both admitted, when asked, that they had been in the habit of eating fish.

At Colombo, Madras, and Calcutta, the medical superintendents of the leper asylums told me that they had no reason to doubt that every one of the patients had been fish-eaters to the full extent of their ability to obtain the article. At Calcutta, however, on questioning the Brahmins of high caste, who were four in number, we found that whilst three admitted the accusation, a fourth, a very voluble and even eloquent man, denied it utterly, averring that he would not have allowed fish to come into his house.

The instance just mentioned is the only one of denial which has as yet come under my personal notice; but others have, of course, been mentioned in the discussions to which I have referred. Nor am I yet out of the wood myself, for I have received an anonymous postcard informing me that if I will visit a certain place in the Punjab, I shall there find "an asylum containing a 100 lepers not one of whom has ever tasted fish in his life." I had some little difficulty in finding where the place is, for none of my medical friends had ever heard of it. I am, however, now *en route* to accept the challenge, and the result of enquiries on the spot shall in due course be made known to readers of the POLYCLINIC.

Although my chief attention has been given to leprosy, I have not wholly neglected other subjects. I have visited the general hospitals and the pathological museums and have picked up all I could. This morning, for instance, I have been round the wards of the Mayo Hospital under the guidance of Colonel Browne, the principal of the Medical College, and accompanied by Mr. Percy, the surgeon-in-chief. From both of these gentlemen I have received much information as to the diseases prevalent in the district. We have talked about madura foot, phthisis and scrofula, cancer and calculus, pigmentation of the skin, of the relation of hill diarrhœa to sprue, and many other topics, most of them suggested by cases before us. Having finished the ward visit, I went to the surgical out-patient's room and there saw, amongst others, a case of Guinea-worm and an exceedingly interesting one of the so-called ulcerating granuloma of the pudenda. You will find an excellent chapter on this in Scheube's recently-translated work. I feel sure that it is not an exclusively tropical disease. Cases occur in English practice, and, if I mistake not, it is identical with the malady which the late Dr. Matthews Duncan described some years ago in an elaborate paper read before the Medico-Chirurgical Society.

At Calcutta there is an extensive collection of coloured portraits executed by a native artist, some of them of great interest. I have arranged for about thirty of them to be copied. They will make a valuable addition to our Polyclinic museum, and in due time most of them will probably be reproduced in the New Sydenham Society's Atlas.

You may, perhaps, be astonished to learn, at any rate I was, that Raynaud's malady is by no means unknown in the Tropics. In the Calcutta collection there are good portraits of it, and Major Drury told me that he had seen several cases.

In most of the cities which we have recently visited there is a sprinkling of plague. I have not felt it my duty to visit the plague wards, but have been present at consultations in doubtful cases. The medical officers in dispensaries and out-patient departments have to be constantly on the alert, and all patients with recent and unexplained buboes are held to be suspicious.

There is no leper asylum here, but to-morrow afternoon I am to give a lecture in the Medical College. When that is over we return to Amritzur, where there is an asylum, and from whence we shall also visit the one at Tarn-Taran. After that we go to Jullunder, and probably to Sabathu; thence to Delhi, Jeypore, and Bombay. At the last-named place I hope thankfully to embark, on March 21, in the "Egypt" for home.

Believe me,

Yours sincerely,

Jonathan Hutchinson.

THE PLAGUE IN INDIA.

(*Letter from Mr. Hutchinson.*)

Amritzur,
March 3, 1903.

The absolute freedom from anything like panic as regards the presence of plague in the cities of India is a very remarkable feature in all classes of the population. I am writing this in Amritzur, where last week, out of 1,076 cases, 731 persons died of the disease. In Lahore, which city I left last week, the mortality was 390 out of 833 cases. Nor is there any indication in either place that the worst is past. We drove yesterday through the little town of Taran-tara (4,000), a resort of pilgrims, and possessing a shrine. In its narrow streets many houses were closed and marked with a long bar of white paint, implying that deaths from plague had occurred in them. We were told of instances in which whole families had died, and were assured that the town was comparatively deserted. One medical informant told me that of the recognised cases not fewer than 95 per cent. had died. Practically the disease had been almost universally fatal. Yet business was going on as usual, and on the day that I was there, a long string of pilgrims, on foot, in carriages, or mounted on camels or asses, was passing slowly through its narrow streets. The procession was miles in length and took the whole morning to get through. It had very properly been forbidden by Government, but the authorities had not felt themselves strong enough to prevent it. The natives are absolutely careless as to precautions, though willing enough to run out of the house when the disease shows itself. It is greatly to be feared that before long the disease will have established itself all over India.

Those who have to deal with the plague question in India encounter difficulties of which English practitioners would never dream. In the first place, isolation of patients is impossible. The natives will not permit the removal of their relatives, and in many instances will not seek any skilled advice. When several cases have occurred in a house, they will take alarm, will desert their relatives and the house, and leave the burial and disinfection to be done by others, but they will not give any assistance to measures of precaution. Even as regards rats, now so well known to be the chief agents in the spread of the malady, their methods are most perverse. Many of them will not kill a rat or be in any way accessory to its death. They will catch them alive in traps, take them to a distance, and turn them loose, not improbably in someone else's garden. Last winter I found near Cape Town the walls placarded with notices of rewards for the bodies of killed rats. In India such offers would be nugatory. You must pay for live rats and must promise not to kill them. At Amritzur I was offered the opportunity of inspecting a rats' home, which was described to me as a large room fenced with wire and having a stone floor. Into this the captured rats were turned, and there they were liberally fed. My informant told me that the confinement and the inability to burrow did not suit them, and that, as a matter of fact, they soon died, but, he added, that if it were known that any lethal measures were adopted, the supply of live rats, although well paid for, would soon cease. Such are the absurdities into which over-scrupulosity of conscience may lead its votaries.

I did not visit the rats' hell which I have described, for much as I should have liked to realise with my own eyes that such an arrangement could in the twentieth century be forced upon science by religious creed, the risk seemed too great. It is by the fleas and other parasites of the rat that the plague poison is conveyed, and no one who has not been immunised ought to venture within the walls of such a place. I heard without any surprise that the inhabitants of the district had objected to the presence of this unique institution in their proximity, and that another site would have to be found for it.

My informants as to plague at Amritzur were chiefly Colonel Milroney, the Medical Officer of the district, and Dr. A. C. de Rienzi, the gentleman in charge of the plague hospital and of other arrangements for suppressing the disease. Both of these had themselves, in common, I believe, with all Europeans who were likely to be exposed to risk, been treated by serum injections. Dr. Rienzi had been done twice, and it had taken both times (with a five months' interval). They did not describe their experiences as having been other than very painful and almost alarming, a severe rigor with a temperature of 104°, had been followed by distressing lassitude and debility. They agreed, however, that in the natives the reaction is usually less severe. The latter are injected in batches at selected places, and are allowed to return to their homes. They usually present themselves next day and seem but little the worse. The most careful aseptic precautions are taken, and it is very unusual for local inflammation to follow.

Both the gentlemen I have named expressed the utmost confidence in the efficiency of the preventive treatment by injection, as well as in the use of immunised blood serum as a measure of treatment after the disease has commenced. The natives, however, need much persuasion, and a lamentable accident which occurred last November, and which was eagerly published abroad by the native press, did much in this locality to confirm their prejudices.

Tetanus after Subcutaneous Injection of Plague Serum.

The facts as to this unfortunate occurrence, as they have been related to me, are the following:—

Nineteen healthy young natives were injected, on the same occasion, from the same bottle of Haffkine's fluid, as supplied from Bombay. All developed symptoms of acute tetanus about the fifth day, and all died within a few days later. Other bottles supplied in the same consignment proved innocuous. The operator was a well-skilled and careful man, and all the usual precautions were observed. Now it must be remembered that in the district in which this occurred, tetanus is common, and its bacillus presumably exists in the soil in considerable abundance. The facts suggest that contamination occurred on the spot rather than at Bombay. It may have had to do rather with the syringe than with the fluid in the bottle.

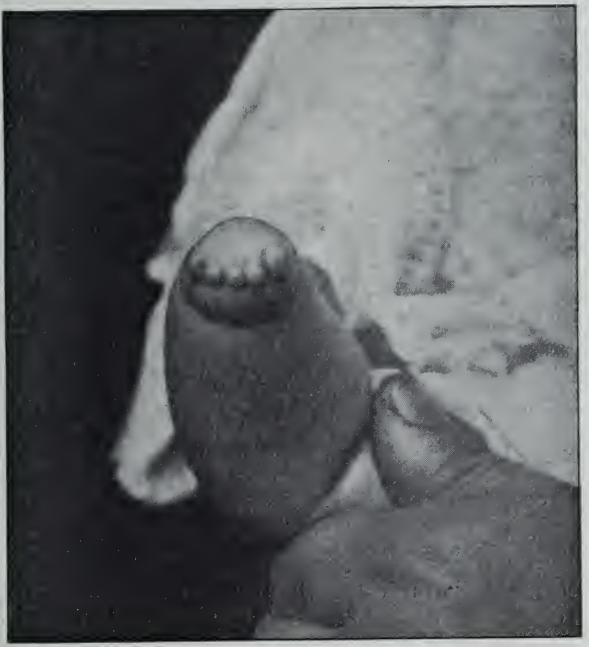
As a not uninstructive commentary on the general lack of confidence in each other's assertions, I may mention that a missionary told me that in his district the natives said they believed the entire story to be a lie.

INTRAUTERINE AMPUTATIONS.

We are indebted to Dr. Thos. R. Muir for the following interesting note and photograph: "In connection with the article on Intrauterine Amputations, which appeared in the Polyclinic of March last (vol. vi., p. 154), I have pleasure in communicating the following note on a child at whose birth I attended three weeks ago. The mother was a healthy multipara; the presentation was a breech. The baby was healthy and well-formed, with the exception that it lacked the right hand. The separation had been effected exactly at the distal ends of the ulna and radius. The upper-arm, and the forearm to this point, were normally formed.

"The peculiar feature is the presence on the end of the stump of five little digitations, each about half a centimetre in length, and consisting mainly of integumentary tissue. These processes are rounded, and the one which would correspond to the thumb is slightly thicker than the others. Apart from the presence of the digitations, the stump presents the appearance of a well-performed artificial amputation. The photograph on page 157 of the Polyclinic of March, 1902, gives a good idea of the appearance of the digitations.

"It is remarkable that within a few days following the birth of this child I saw another example of intrauterine amputation in a boy 9 years of age, the appearance of whose hand is almost exactly portrayed on page 155 of the Polyclinic. The only apparent difference is that this boy retains *part* of the proximal phalanx of the index finger, which enables him to make fairly good use of his hand. In this case the limb affected is the left one."



Dr. T. R. Muir's case of Intrauterine Amputation of the Hand, with Rudimentary Digits arising from the stump. (The grove on the flexor aspect does not represent a wrist, but is a mere superficial depression in an unusually plump and well-nourished forearm.)

Dr. Muir's case is one of much interest, and we heartily thank him for adding so striking an illustration to our records. It has been doubted by some whether such processes as the figure represents really are rudimentary digits. But, so far as we know, no alternative interpretation has been suggested.

In Dr. Muir's case the projections are unusually distinct, and, as he points out, the one corresponding in position to the thumb is broader than the others, and is separated from its neighbour by a wider interval than those found between the other processes. The number of the projections is itself a suggestive fact. In one of our earlier illustrations the stump showed only three, and a complete set of five is one of the special features of the present case. The presumption that such conditions are rightly regarded as rudimentary digits is carried a stage further by one or two cases in which one or more of the projections have displayed a nail-like formation near the free extremity. Taken altogether, therefore, the evidence seems decidedly to support a *prima facie* case in favour of this theory.

NOTES ON FOOD AND DRUGS.

Rufus' Pill.—The original formula of this famous pill is to be found in the *Breviarum Practicæ*, by Arnald, of Villanova (1235-1312). It reads as follows:—Aloes 4 parts, myrrh 2 parts, saffron 1 part. Rufus' pill is said to have been in common use as a "dinner pill" during the sixteenth century, and it still survives in the *Pil. Aloes et Myrrhæ* of the British Pharmacopœia.—"Withington's Medical History."

Infantile Diarrhœa.—A very effective remedy in the treatment of simple forms of diarrhœa in children is zinc oxide. One or two grains of the oxide and a minim of the compound tincture of camphor, in each dose, and combined with mucilage and syrup, form a pleasant and successful mixture.

Sodium Salicylate in Chronic Arthritis.—It is very generally believed that sodium salicylate is of little or no value in relieving painful conditions of the joints excepting the acute polyarthritis of rheumatic fever. Indeed, this proposition has been quoted as an argument against those who teach that certain forms of chronic joint disease are rheumatic in causation. Without entering on the validity, or otherwise, of this argument, it may be stated as a fact that sodium salicylate in the condition commonly known as rheumatoid arthritis has a distinct sphere of usefulness. This is to be found in the relief it affords to the stiffness of which the patient so often complains when waking in the morning. His early movements are attended with great discomfort, which only gradually lessens, as he commences to use his muscles. It will frequently be found that a full dose of sodium salicylate at bedtime will prevent this morning stiffness. Patients have been known to take doses of 30 or more grains every night for many months with great advantage, and without any apparent ill-effects.

The Combination of Remedies.—"I have frequently endeavoured to impress upon the class the truth of an observation made by Dr. Paris, that in the exhibition of remedies much better effects are obtained by combining several analogous remedies in small quantities, than by giving a single one in a large dose. By combining substances which are of the same nature, that is to say, which are individually capable of exerting the same effect on the system, we are capable of producing more decided effects, even though these substances be given in diminished quantity, than if we prescribed any one ingredient of the combination in a full dose."—Graves' "Clinical Medicine."

Plasmon.—This has already attained a sure position as a highly nutritive and readily digestible albuminous food. It has a wide range of usefulness in medical practice. The proprietors now issue a number of preparations in which Plasmon is combined with cocoa, chocolate, beef-jelly, &c. The last-mentioned is particularly useful as a form of nourishment in conditions of exhaustion and where vomiting is troublesome, &c. Plasmon biscuits are a pleasant and grateful food preparation for diabetics.

NOTES ON ARSENIC.

Susceptibility to Arsenic.—An old lady of 64, with whom the very smallest doses of arsenic disagreed, causing general irritation of the skin, told the writer that she had a similar susceptibility in reference to tea. She was a pale, thin, dyspeptic woman, and the subject of eczema of the fingers and toes. Arsenic had once, she said, brought out an eruption.

In a book on "The Pathology and Treatment of certain Diseases of the Skin generally pronounced Intractable" (London, 1847), the author, Mr. Hunt, states that in persons of fair complexion and delicate skin, arsenic commonly produces a dirt-brown, dingy, unwashed appearance of all those parts of the body protected from access of light and air; also that examination by a lens detects a delicate desquamation of the cuticle.

Ptyalism is one of the conditions which has been mentioned by many writers as an occasional result of arsenical poisoning. I do not know that I have ever myself met with this symptom in connection with the medicinal use of the drug.

Œdema of the feet and of the face is a condition which has been frequently seen.

I have not found any recorded case of paralysis of a cranial nerve or a failure of any of the special senses in connection with arsenical poisoning, whether acute or chronic. In this respect arsenic differs much from lead. The latter, as is now well known, often causes neuritis of the optic nerve.

* * *

De Valangin's Solution.—The hydrochloric solution of arsenic (*Liquor Arsenici Hydrochloricus*) was at one time known as De Valangin's Solution. Dr. de Valangin was a native of Switzerland, but practised in London. He died in 1805. He was the author of "A Treatise on Diet, or the Management of Human Life by Physicians," London, 1768. In his "Practical Synopsis of Cutaneous Diseases" Dr. Bateman, in noticing the beneficial effects of Fowler's solution in the treatment of lepra, says in a footnote: "Another preparation, introduced by the late Dr. De Valangin, is kept at Apothecaries' Hall under the name *Solutio Solventis Mineralis*, and is equally efficacious."—Pereira's *Materia Medica*, vol. i. (fourth edition, 1854).

* * *

Pereira on Arsenic.—"Some writers go so far as to assert that it (arsenic) is a strengthening remedy, and that it improves the appetite, invigorates digestion, promotes assimilation and secretion, excites the muscular and nervous functions—in a word, acts like a *tonic*. I cannot, however, subscribe to this doctrine. . . In proof of the beneficial effects of this substance we are gravely told that the country people of Upper Styria, in Austria, use arsenic as a stomachic and condiment for many kinds of food—for example, cheese; and a healthy peasant himself tells us that he was accustomed to take 2 grains of arsenic daily, without which he assures us he could not live! In further proof of this strengthening action of arsenic, Vogt says it promotes the appetite, the activity and the power of old, enfeebled horses, and mentions that Jäger noticed the same effects on a pigeon. To the first of these statements, namely, the beneficial effects from the use of arsenic as a condiment, I do not give credence; and with respect to the action of arsenic on horses, every well-informed veterinarian knows that this substance operates on these animals as a poison. . . The so-called 'undisputed facts' regarding the benefits derived from arsenic-eating have been rejected by all authorities of repute, including the author of this work."—*Ibid.*

REVIEWS AND NOTICES OF BOOKS.

BIOGRAPHIC CLINICS: THE ORIGIN OF THE ILL-HEALTH OF DE QUINCEY, CARLYLE, DARWIN, HUXLEY, AND BROWNING. By George M. Gould, M.D. (Rebman, Limited, 1903.)

THIS interesting and well-written, but quaint little volume, contains a series of extracts, mostly auto-biographical, taken from the writings of the eminent authors, whose medical life-history Dr. Gould summarises and criticises by a running commentary of remarks, and eventually concludes that each of the above-mentioned scientists and literary men suffered mainly from eye-strain, due to astigmatism or some error of refraction, which in the past generation and previously it was practically impossible to diagnose, and still less so to satisfactorily treat.

Thus De Quincey, who was well known as an opium eater or laudanum drinker, was, according to the author, driven to his habit of narcomania by his intense depression and a long train of functional nervous symptoms, all previously induced by his presumptive "myopic astigmatism." He moreover adds in a footnote that De Quincey's physician, Dr. Begbie, thought that his patient's immunity from headache was due to opium, and states that Dr. Begbie evidently did not know "that myopic patients do not have headache"!

Carlyle did not seem to suffer from any serious aberration from health till his twenty-third year, when he commenced to be a sufferer from headache, biliousness, and indigestion. This train of symptoms, Dr. Gould suggests, may have existed since boyhood, but may not have been recorded, and that his error of refraction may not have developed till his twenty-third year, and suggested that Carlyle saw his ailments through "the lens of his imagination"!

Dr. Gould thinks that Carlyle's poor opinion of the medical profession was entirely justified, naturally inferring that had he been alive at the present day and consulted Dr. Gould his opinion would have entirely changed, for he states that had Carlyle consulted one hundred of the best general physicians of the day he would have obtained no more help. It was exactly so later with Darwin, Huxley, and Browning.

The stomach and liver would have been charged with disordered functions, and travel and rest would have been prescribed. All the nervous dyspeptic and other symptoms were inexplicable except on the theory that eye-strain was the cause of all the trouble.

I need not further proceed to review the numerous symptoms of the others who were all variously and severally afflicted with dyspepsia, liver affections, headaches and nervousness, all of which are and were secondary to various forms of astigmatism, which the few final chapters of this ingenious but far-fetched little volume more especially elucidate; but they are all more or less written in the same strain, proving conclusively to the author, and perhaps to a few devotees, that most of the functional disorders to which man is subject are curable by suitable spectacles, but which will strike perhaps the average reader as running specialism to death.

These eye-strains due to errors of refraction should no doubt be all corrected by adequate and proper lenses, but to include in the symptoms from this defect a large number of functional and other diseases, which not a few physicians of to-day attribute to gout, uric acid, and similar causes, is rather "tall" and, shall I say, "American," of course in a "Pickwickian sense!"

I think if Carlyle and Browning were to be resuscitated and installed as judges of their own complaints after reading this book, they would bring in the Scotch verdict "Not Proven," and English physicians will want a more powerful array of circumstantial evidence to convince then of the truth which Dr. Gould has in this interesting little volume done his best to establish.

Boyd Joll.

LETTER TO THE EDITOR.

Sir,—In the March (1903) number of The Polyclinic is a paragraph in which you urge the importance of care in nomenclature. With your remarks on this subject I entirely agree. I would therefore wish to point out to you the desirability of change in the nomenclature of the disease now commonly called "myxœdema."

Let me briefly give an outline of the discovery of this remarkable disease, and the causes which led Ord to label it with the name by which it is so widely known.

In 1874, the late Sir William Gull first described the disease in a paper entitled, "A Cretinoid Condition supervening in Adult Life in Women," which he communicated to the Clinical Society. This paper excited a great amount of attention and no little controversy, seeing that the true pathology of the affection was as yet unknown. Some clinicians of repute went so far as to regard the patients described by Gull as suffering from a variety of Bright's disease without albuminuria. But change in the kidneys is not a feature of myxœdema; and if albuminuria be present, as indeed it may be in a few isolated cases, it is an accidental occurrence or complication, and by no means a clinical characteristic of the disease.

In the late 'seventies, Ord, whose attention and interest had been drawn to the malady, had a case, Harriet Johnson, in his ward at St. Thomas's Hospital. Another woman was admitted under his care some months later, and before a year had elapsed the disease was discovered in an adult male. The first case died whilst in the hospital, notwithstanding assiduous attention and a treatment which was directed mainly towards the correction of the dryness and harshness of the skin.

It fell to my lot to make a microscopical examination of the organs and tissues of the body; whilst another colleague, Dr. Cranstoun Charles, a most able observer, now unhappily no longer with us, was asked to furnish a chemical report on the same. I need not speak of my microscopical work, as it has no bearing on the subject of this communication. Dr. Charles reported an excess of mucin in every organ and tissue of the body, greater in some parts (50 times more), less in others. Hence Dr. Ord coined the word "myxœdema" (mucous œdema). Dr. Charles may have erred in his observations and in his figures; or very possibly the tissues of this one case did present the abnormal amount of mucin which he described. If so, it can only have been an accidental occurrence; for when a special Committee, nominated by the Council of the Clinical Society to investigate this disease, issued its Report (supplement to vol. xxi., 1888), they state that "the increase of mucin, as found by Dr. Charles in Dr. Ord's first case, has not been found in anything like so great an amount in subsequent cases, nor is the increase so marked as in the experiments on animals."

Obviously, therefore, "myxœdema" is a misnomer. There is no mucous œdema in this affection, and no increase of mucin in the tissues and organs.

I used frequently to discuss this question with Dr. Ord, and he went so far as to hint at the suggestion of a new title for the disease towards the elucidation of which he did such splendid work.

I am not in favour of calling maladies after their discoverers, except in certain rare instances, but I venture to think that such a term, clumsy if you like, as "Gull and Ord's Disease" would be more appropriate than myxœdema. It commits us to no pathological definition; but it does help to commemorate the work of two brilliant clinicians. Or some of our members, possessing deeper classical knowledge than I can lay claim to, might suggest a nomenclature indicative of a condition which is dependent on a destructive affection of the thyroid gland.

I am, Sir, faithfully yours,

Seymour Taylor.

CORRESPONDENCE AND ANSWERS.

Hysterical Anæsthesia.—"Hysterical anæsthesia is no doubt for the most part easy of recognition; but it presents great variety of character and degree, and hence is apt to simulate, and simulate closely, some of the forms of anæsthesia accompanying organic disease. That anæsthesia is functional is determinable partly by its distribution, partly by its shifting character, partly by the association with it of other functional disorders. In a large proportion of cases it is strictly unilateral. But cases are often met with in which it occurs scattered over the body in more or less symmetrical areas."—Dr. Bristowe.

* * *

THE INVENTION OF THE OPHTHALMOSCOPE.—"When von Graefe first saw the fundus of the living human eye, with its optic disc and blood vessels, his face flushed with excitement, and he cried—'Helmholtz has unfolded to us a new world! What remains to be discovered?'"—"Hermann von Helmholtz" by Professor McKendrick, F.R.S.

* * *

ON DREAMS.—"There is an art to make dreams, as well as their interpretations; and physicians will tell us that some food makes turbulent, some gives quiet, dreams. Cato, who doted upon cabbage, might find the crude effects thereof in his sleep; wherein the Egyptians might find some advantage by their superstitious abstinence from onions. Pythagoras might have [had] calmer sleeps, if he [had] totally abstained from beans. Even Daniel, the great interpreter of dreams, in his leguminous diet, seems to have chosen no advantageous food for quiet sleeps, according to Greek physic. . . . If some have swooned, they may have also died in dreams, since death is but a confirmed swooning. Whether Plato died in a dream, as some deliver, he must rise again to inform us. That some have never dreamed, is as improbable as that some have never laughed. That children dream not the first half year; that men dream not in some countries, with many more, are unto me sick men's dreams; dreams out of the ivory gate, and visions before midnight."—Sir Thos. Browne.

* * *

PIGMENTATION OF THE HAIR.—We may refer our correspondents on this subject to some interesting records to be found in Graves' *Clinical Medicine*, vol. ii., p. 431, *et seq.* We briefly quote two of these:—(1) "In the year 1837, I was called by Dr. Beauchamp to see a gentleman, aged 67, labouring under the then prevalent influenza. He was a strong, hirsute man, and his chest was covered with long white hair, which had been black in his youth. We blistered him on the chest, and when he recovered from the disease, the hair on the part which had been blistered grew again, but was now quite black, and has continued so since." (2) "I once attended a lady upwards of eighty years of age, who exhibited all the usual appearances of withered senility, but who had a magnificent head of coal-black hair. Contrary to what might be expected, she bitterly deplored the circumstance, for this emblem of youth was but ill-assorted with every other external sign of old age. 'Two years ago,' said my lady patient, 'my maid in combing me, discovered a grey hair. I was overjoyed, and hoped that others would speedily follow; but none have appeared since.' She was the only person who ever asked me for a *receipt* to turn the hair grey."

* * *

OLIVER WENDELL HOLMES ON THE PROFESSIONS.—"The lawyers are the cleverest men, the ministers are the most learned, and the doctors are the most sensible."

* * *

SIDNEY SMITH ON TOWN *versus* COUNTRY.—"The summer and the country have no charm for me. I look forward anxiously to the return of bad weather, coal fires, and good society in a crowded city. I have no relish for the country; it is a kind of healthy grave. I am afraid you are not exempt from the delusion of flowers, green turf, and birds; they all afford slight gratification but not worth an hour of rational conversation, and rational conversation in sufficient quantities is only to be had from the congregation of a million of people in one spot. . . The real use of the country is to find food for the cities."

* * *

EXTRACTS FROM PEPYS' DIARY.—"*May* 24, 1660.—At supper the three Drs. of Physique again at my cabbin ; where I put Dr. Scarborough in mind of what I heard him say, that children do, in everyday's experience, look several ways with both their eyes till custom teaches them otherwise. And that we do now see but with one eye, our eyes looking in parallel lynes."

"*June* 23, 1660.—Staid to see the King touch people for the King's evil. But he did not come at all it rayned so, and the poor people were forced to stand all the morning in the rain in the garden. Afterwards he touched them in the banqueting house."

* * *

POPULAR NOTIONS ABOUT VENESECTION.—"Certain hurtful prejudices, with regard to bleeding, still prevail among the country people. They talk, for instance, of head-veins, heart-veins, breast-veins, &c., and believe that bleeding in these will certainly cure all diseases of the parts from whence they are supposed to come, without considering that all the blood-vessels arise from the heart, and return to it again; for which reason, unless in topical inflammations, it signifies very little from what part of the body blood be taken. But this, though a foolish prejudice, is not near so hurtful as the vulgar notion that the first bleeding will perform wonders. This belief makes them often postpone the operation when necessary, in order to reserve it for some more important occasion, and when they think themselves in extreme danger they fly to it for relief, whether it be proper or not. Bleeding, at certain stated periods or seasons, has likewise bad effects."—Buchan's "Domestic Medicine," 1772.

* * *

PHTHISIS PULMONALIS AS AN INFECTIOUS DISEASE.—The following extracts are taken from a book entitled "An Account of the Foxglove and some of its Medical Uses," published in 1785, and written by Wm. Withering, M.D., Physician to the General Hospital at Birmingham :—"Phthisis pulmonalis is a very increasing malady in the present day. It is no longer limited to the middle part of life ; children at five years of age die of it, and old people at sixty or seventy. It is not confined to the flat-chested, the fair-skinned, the blue-eyed, the light-haired, or the scrofulous ; it often attacks people with full chests, brown skins, dark hair and eyes, and those in whose families no scrofulous taint can be traced. It is certainly infectious. The very strict laws still existing in Italy to prevent the infection from consumptive patients, were probably not enacted originally without a sufficient cause. We seem to be approaching to that state which first made such restrictions necessary, and in the further course of time, the disease will fall off again, both in virulency and frequency. . . . Sydenham asserts, that the bark did not more certainly cure an intermittent than riding did a consumption. We must not deny the truth of an assertion from such an authority, but we must conclude that the disease was more easily curable a century ago than it is at present. . . . If the Digitalis is no longer useful in consumptive cases, it must be that I know not how to manage it, or that the disease is more fatal than formerly. . . . I wish others would undertake the enquiry."

* * *

The Meaning of the Term Rheumatism.—"Cœlius Aurelianus [fifth century] speaks of rheumatism not as a term for diseases of the joints, but as an internal defluxion of a thin humour. Galen uses the term in the same sense."—Dr. Scudamore.

"According to ancient writers, the word rheumatism seems to have been applied to affections to which they attached the idea of a 'humoral defluxion,' especially to those characterised by mucous and pituitous discharges."—"Copland's Medical Dictionary."

"Ballonius [died 1616] is credited with being the first to use the word rheumatismal in its present sense."—Sir Wm. Church.

* * *

The Origin of the Word Drug.—"The art of *simpling* is as old with us as our British hills. It aims at curing common ailments with simple remedies culled from the soil, or got from home resources near at hand. Since the days of the Anglo-Saxons such remedies have been chiefly herbal; insomuch that the word "drug" came originally from their verb *drigan*, to dry, as applied to medicinal plants."—Fernie's "Herbal Simples."

* * *

Dr. Todd on Gout and Rheumatism.—According to Dr. Todd, there is "good reason to believe that in both gout and rheumatism the morbid matters are primarily derived from a defect in that part of the digestive process which is performed by the stomach and duodenum, collateral circumstances determining whether they are to produce phenomena referable to gout, or to give rise to the train of symptoms which may be designated as rheumatic."—"Practical Remarks on Gout, Rheumatic Fever, and Chronic Rheumatism."

* * *

Darwin's Medical Experiences.—"At one time I had at least a dozen patients, and I felt a keen interest in the work. My father, who was by far the best judge of character whom I ever knew, declared I should make a successful physician—meaning by this, one who would get many patients. He maintained that the chief element of success was exciting confidence; but what he saw in me which convinced him that I should create confidence I know not. I also attended on two occasions the operating theatre in the hospital at Edinburgh, and saw two very bad operations, one on a child, but I rushed away before they were completed. Nor did I ever attend again, for hardly any inducement would have been strong enough to make me do so; this being long before the blessed days of chloroform. The two cases fairly haunted me for many a long year."—Autobiographical Chapter in "Life of Charles Darwin."

* * *

The Medicinal Value of Liquorice.—"Liquorice as a remedy has been very little known, if at all. But it has some most useful properties. For relieving the symptoms caused by acrid matters in the stomach, I know nothing to equal it and I have used it for this purpose for at least forty years. . . . It in some, way of its own—for it is neither from mere dilution nor from neutralising the acid—removes the irritable quality of the acid or acrid mass, and adds nothing deleterious to the contents of the stomach. . . . Solazzi brand is perhaps the best, but good Pontefract cakes are a very handy form, and there are some excellent concentrated forms in small pellets, which are to be had from a good druggist."—Dr. Keith's "Fads of an Old Physician."

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC,

22, CHENIES STREET, GOWER STREET, W.C.

PROSPECTUS

OF THE

Composite Course of Lectures on Medicine and Surgery and their Allied Branches, April to July, 1903.

DAILY, EXCEPT SATURDAYS, AT 5.15 P.M.

April	1, Wed.	Mr. Hayward Pinch. "Diphtheria, and its Antitoxin Treatment."
,,	2, Thurs.	Mr. Hayward Pinch. "Diphtheria, and its Antitoxin Treatment."
,,	3, Frid.	Mr. Stephen Paget. "The use of Paraffin in Plastic Surgery."
,,	6, Mon.	Prof. A. E. Wright. "On Therapeutic Inoculation."
,,	7, Tues.	Mr. D'Arcy Power. "Cancer."
,,	8, Wed.	Dr. Harry Campbell. "On Cerebral Softening."
,,	9, Thurs.	Mr. Jas. Cantlie. "The Anatomy, Common Ailments of the Liver and their Surgical Treatment."
,,	10, Frid.	Good Friday.
,,	13, Mon.	Easter Monday.
,,	14, Tues.	Easter Tuesday.
,,	15, Wed.	Dr. Harry Campbell. "On Cerebral Softening."
,,	16, Thurs.	Mr. Jas. Cantlie. "The Anatomy, Common Ailments [illegible] their Surgical Treatment."
,,	17, Frid.	Dr. J. M. H. Macleod. "The Histological Effects of the Finsen Light and X-Rays."
,,	20, Mon.	Prof. A. E. Wright. "On Blood Coagulability, and its Relation to Hæmorrhage and Thrombosis."
,,	21, Tues.	Dr. G. F. Still. "Heart Disease in Children."
,,	22, Wed.	Dr. Harry Campbell. "On States of Unconsciousness."
,,	23, Thurs.	Mr. Jas Cantlie. "The Anatomy, Common Ailments of the Liver and their Surgical Treatment."
,,	24, Frid.	Mr. Hayward Pinch. "Immunity."
,,	27, Mon.	Prof. A. E. Wright. "On Blood Coagulability, and its Relation to Œdema, and Serous Effusions Generally."
,,	28, Tues.	Dr. G. F. Still. "Chorea."
,,	29, Wed.	Dr. Robert Jones. "Mental Unsoundness Amounting to Certifiable Insanity."
,,	30, Thurs.	Dr. W. Howship Dickinson. "The Tongue in Disease."
May	1, Frid.	Dr. Louis Sambon. "Insects of Medical Interest."
,,	4, Mon.	Dr. Louis Sambon. "What is Life ?"
,,	5, Tues.	Dr. T. K. Monro. "Raynaud's Disease."
,,	6, Wed.	Mr. Treacher Collins. "Injuries and Diseases of the Orbit."
,,	7, Thurs.	Dr. G. Drummond Robinson. "Uterine Displacements."
,,	8, Frid.	Dr. A. P. Luff. "The Differential Diagnosis and Treatment of Chronic Disease of the Joints."
,,	11, Mon.	Dr. G. E. Herman. "Retroversion of the Gravid Uterus."
,,	12, Tues.	Dr. A. P. Luff. "The Differential Diagnosis and Treatment of Chronic Disease of the Joints."
,,	13, Wed.	Dr. Leonard Williams. "Some Practical Points in Climatology."
,,	14, Thurs.	Dr. G. Drummond Robinson. "Uterine Displacements."
,,	15, Frid.	Sir Felix Semon. "Acute Septic Inflammations of the Throat and Neck."

THE POLYCLINIC

BEING THE

JOURNAL OF THE MEDICAL GRADUATES' COLLEGE, LONDON.

Vol. VII., No. 5.—May, 1903.

THE CAUSES OF CANCER.

The study of Cancer as it is met with in the different races which make up the Indian population reveals facts of very great importance. If we mistake not they are of the kind which form the very basis of our knowledge as to the causes of the maladies known under that name. They do not teach new doctrine—if they did we might, perhaps, more reasonably mistrust them—but they give emphatic support to old opinions which have of late passed too much into disrepute. Foremost amongst them may be mentioned the doctrines of origin in the individual from local irritation and of perpetuation in the community by the transmission of inherited tendency. We will deal on the present occasion only with the first of these, but a few general statements may be conveniently premised. Malignant new growths are on the whole much less common in India than in Europe, and this scanty prevalence is much more definite in the case of the epithelial or carcinomatous forms than it is in that of the sarcomata. All the varieties of neoplasm which occur in Europe are met with in India, the difference being simply as to their relative prevalence. Scirrhus of the breast is not common and rodent epithelioma of the face is almost unknown.

It has long been known in England that phymosis is a condition which powerfully predisposes to epithelioma of the penis, and the advocates of circumcision have often urged as a recommendation that it tends to prevent cancer. They have also asserted in confirmation of their views that Jews in all parts of the world are almost absolutely exempt from this form of disease. Now in India this teaching receives confirmation on a large scale. The Musulman population is very large, all its members are circumcised and they appear to be almost wholly free from cancer of the penis. On the other hand the Hindoos, who have long foreskins and are negligent of cleanliness, suffer frequently. Cancer of the penis is amongst them one of the most common forms of cancer.

Next, perhaps, in frequency to cancer of the penis comes cancer inside the mouth. The tongue, the mucous membrane of the cheeks, and that of the floor of the mouth suffer in a fair number of cases, and the course of the disease is exactly parallel with that observed in Europe. Cancer of the lips is, however, very rare. The explanation of these facts is not difficult. The smoking of pipes of any kind is, as compared with England, not common; that of the short clay pipe being unknown. On the other hand, the mouth is subject to constant irritation by the universal habit of chewing the betel leaf with a mixture of lime and other ingredients.

The rarity of rodent ulcer and of all forms of cancer of the skin of the face is probably accounted for by the circumstance that the pigmented skin is protected from the irritation of the sun's rays. If this should be thought insufficient it may be further suggested that the Indian does not, as a rule, render the skin of his face susceptible by the excessive use of soap. Sunlight and soap, acting upon a fair and delicate skin may be held to be the chief predisponents to rodent ulcer as met with at home.

There remains for mention another and a very peculiar form of epithelial cancer which seems to be without doubt traceable to local irritation.

In 1866, Mr. W. J. Elmslie, who was stationed in Kashmir, described[1] a series of twenty cases of epithelioma. He stated that the diagnosis was unmistakable, and at the same time drew attention to some very remarkable features in the series.

In all of them the site of the growth was either the abdomen or the side of the thigh. Four of the patients were females and sixteen males. In seven cases the patient was under 40, but most had passed middle age. All were natives of the "Fair Valley," Kashmir, where the climate is hot in summer and very cold in winter. Dr. Elmslie attributed the disease and its very peculiar location to the local habit of carrying what is called a Kangri—a portable earthen brazier—under the clothes. The Kangri is protected by wickerwork, but is often placed close to the skin under a loose woollen gown. In the erect posture it hangs on the abdomen, but when sitting it is placed between the thighs.

Dr. Mitra, the then Chief Medical Officer of Kashmir, writing in 1889, fully confirmed Dr. Elmslie's observations, and added that other forms of cancer were rare in that country. He suggested the name of "Kangri cancer" for these ulcers. Other observers have noted that burns from the kangri often precede the ulcer, and that after healing the scar is often subjected to repeated irritation from the same source. We are told that in Kashmir no man, woman, or child thinks it possible to be in comfort during the winter months without a kangri under the gown.

Yet more recently very valuable contributions to our knowledge of kangri-cancer have been made by Dr. Neve, now the energetic and intelligent head of an important mission station in Kashmir. Dr. Neve places it beyond any question that the disease is epithelial cancer, and that it runs the usual course in causing gland infection, and if not cured by operation, ending in death. He proves also by statistics that it is common, for he quotes nearly 500 cases.

When it is realised that the three groups of cancer cases which we have mentioned—of the penis in the uncircumcised, of the mouth in betel-chewers, and of the skin of the abdomen in kangri-wearers—constitute the great bulk of the cancers met with in India, the importance of local irritation as a cause of the cancerous process stands out very definitely. We do not wish to be premature or in any sense to throw cold water on the zealous efforts of those who are seeking for the cause of cancer in the laboratory, but it is difficult to avoid a strong *primâ facie* impression that such facts do not favour the theory of parasitic origin. On the other hand they appear to point with a steady finger to the means of prevention, and in the early stages to those of cure. How can a process which may result from the irritation of retained smegma, or the heat of a pocket brazier be supposed to be due to parasitic contagion? Let the microscope show what it may, how can cancer ever be remediable by any other measures than avoidance of its exciting causes and prompt removal of the result at the earliest possible opportunity ?

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[1] See *Indian Med. Gazette*, November, 1866.

OF WHAT DO LEPERS DIE ?

A STATISTICAL table given at page 115 of the "Cape Government Report," for 1898, purposing to show the cause of death of lepers is disappointing, in that out of eighty deaths it records forty-two as from "leprosy," without giving any indication as to the special lesions by which the fatal event was brought about. Of the remainder, no fewer than twenty-two were from "phthisis." The rest are distributed in very small numbers amongst dysentery (one), congestion of the lungs and pneumonia (three), nephritis (seven), carcinoma, septicæmia, amyboid of liver, tubercular peritonitis, Bright's disease, and anæmia (of each one). Are we to assume that those whose deaths are recorded simply as from leprosy were all free from the visceral complications which are thus specially mentioned as having caused death in other cases? Were all the "leprosy" deaths due merely to exhaustion ? This is exceedingly improbable. At another part of his report the medical officer tells us "that the prevalence of death in anæsthetic leprosy is from phthisis, and in tubercular and mixed leprosy from pathological conditions of the liver, spleen and kidneys." In his table, however, the liver is mentioned in only one case, and the spleen not at all.

That lepers often die with tubercular phthisis is well known. This was the case with a man who died in St. George's Hospital, under Dr. Cavafy, and in whom a careful autopsy was made, and of which the particulars are given in the *Lancet* for August 24, 1889. He had been a leper eight years. Dr. Beaven Rake has recorded many cases, one which is given in detail in *Brit. Med. Jour.*, August 25, 1888. "Generally diffused miliary tubercles in both lungs were found."

Dr. Impey, when medical superintendent of Robben Island, gave evidence before the Cape Commission, and stated as follows in reply to the question, "Will you give us a rough idea of the diseases prevalent amongst the lepers this year?" "The chief thing is erysipelas." He added that it attacked the tubercular and mixed cases, but not the anæsthetic, and especially those with open sores. It was a mild form and caused but very little mortality. It did not attack the attendants; might occur in any ward, and though it caused great swelling of the face was not attended by much suffering. The next disease mentioned was diarrhœa. "Of what kind?" "Leprotic." "The ordinary leprotic diarrhœa due to blood-poisoning. We only have it where there is extensive ulceration, &c." "It affects patients all the year round, and has no connection wiih insanitary surroundings." "It is the last stage of the disease." Asked, "Is the percentage of deaths from diarrhœa high?" "They just die from that." "What other causes do they die from?" "General wasting, constant irritation, and the drain on the system." "Do many patients die of phthisis?" "Yes, a good many." "Is it tubercular phthisis?" "Yes, tuberculosis or chronic phthisis. They generally die from ulceration of the throat, and choke if you do not perform tracheotomy, and then they live a long time, but they may have pure phthisis." "In what form of leprosy do you get death from phthisis?" "In both forms."

The mortality was supposed to have been excessive in the Free State lepers, who came from an elevated plateau down to a low island. On this point Mr. Fitel, a resident official, deposed, "those coming from the Free State are much affected by the mist from the sea." "Have the Free State lepers chest complaints?" "It seems to develop on the island, they come down all right, and a number of the patients have simply died of consumption." (They were of the Baralong race.)

Dr. P. E. Todd, after stating that erysipelas was common in all the wards, was asked whether it was due to overcrowding, and replied "No." He appeared to be even a little doubtful whether this fatal form of dermatitis was "erysipelas." He was asked:—

"3712. Is it likely to spread after it has broken out a little? It lasts a certain time, and then dies out again.

"3713. Is it not less likely to occur in a large well-ventilated ward? I believe whether it be erysipelas or simply one of the symptoms of the disease, it occurs fairly frequently, and would occur anywhere. It is a moot point whether it is erysipelas.

"3714. Have you epidemics of it? Yes, sometimes. It sometimes occurs in those rooms where there are fewer patients."

The statements which we have quoted apply to the causes of death in South African asylums. From many others, however, there come from time to time records of the frequency of pulmonary tuberculosis as the last illness of the leper. In India it is not so, and lung disease takes only a very small share in leper mortality. There the cause of death is usually some abdominal illness, diarrhœa or dysentery. Not unfrequently a patient succumbs suddenly to some apparently slight illness, catarrhal or intestinal. Comparatively few die directly from leprosy, and in many the disease passes into complete abeyance for some years before its victim's death.

INFLUENCE OF FAMINE ON LEPROSY.

In recording the fact that leprosy has been reduced in Bombay 50 per cent. in the last decennium, and attributing it chiefly to famine and privation, the Census reporter remarks: "It would scarcely be matter for regret, from the broadest point of view, if the recent misfortunes of the Presidency had removed 100 instead of 50 per cent. of these unfortunates" (p. 166). Had the writer been familiar with the leper asylums of the present day, and realised that a large proportion of the inmates are not disabled from the ordinary occupations and enjoyments of life, and that not a few recover, he would not have ventured such a remark. The popular notion of the horrors of leprosy is a very exaggerated one, as is also the fear of contagion. It was no doubt a belief in the latter which prompted a suggestion which might otherwise seem wanting in humanity.

The effect of famine years upon the prevalence of leprosy is at first sight a little curious. There is a marked diminution, followed by definite increase a few years later. The explanation is that during actual famine the poor, debilitated, and friendless leper is the first to succumb. The famine, however, does not for the most part involve any reduction in the supply of fish-food; perhaps the reverse, and with it a deterioration in quality. Hence a few years later a crop of new lepers is reaped.

A FACT IN SUPPORT OF THE THEORY OF COMMENSAL COMMUNICATION OF LEPROSY.

Dr. Martin Doyle has related to the writer a circumstance which came to his knowledge in Australia. A Chinaman who kept a stall at which eatables of his own manufacture were sold had a sore finger. He was finally admitted into the hospital and his finger was amputated. Then for the first time leprosy was diagnosed. Some time afterwards a little girl residing at a distance showed symptoms of leprosy. It was then ascertained that her family had formerly lived near to the home of this leprous Chinaman and that the child had been in the habit of buying sweetstuff at his stall. The true meaning of the facts only becomes evident when it is added that no other cases of leprosy occurred in the district. It is thus made probable that nothing of the nature of ordinary contagion had occurred, but that the bacillus had been taken into the stomach.

HEALTH IN THE FALKLAND ISLANDS.

Out of a population of 1,700, the deaths during the year 1900 were only sixteen, and of these the majority were by accidents. Drowning is common, owing to the coldness of the shore water and the danger of getting the legs entangled in seaweed. There is no poverty, and everyone is well, possibly too well, fed. There are no deaths from phthisis. The rate of infant mortality is little more than one fourth the English average. Mr. S. Hamilton, the Colonial Surgeon, writes that it is impossible to find conditions more favourable to vigour of body and length of days. He records no fewer than six cases of "podagra" and says that dyspepsia, in the form of pyrosis, is common. He attributes these to an enormous consumption of tea and coffee, to badly-made bread, and to "the ignorance of most women of the rudimentary laws of cooking."

Influenza has not visited the islands for nearly three years, and pneumonia, pleuritis and bronchitis have been unknown of late. We regret to note three cases of delirium tremens (none fatal). The climate is cold and bracing, only " a small portion of sunshine and warmth." The ratio of births to deaths in 1900 was sixty-one to sixteen, and in 1901 sixty-eight to fifteen. Mr. Hamilton concludes his report by the remark that the health of these islands is without parallel in His Majesty's dominions.

NATURE STUDY BY MEDICAL MEN.

It is late in the day to say that the disciples of the medical art ought to be students of Botany, Zoology, and Natural Science in its widest sense. In truth they have always been so ; some of the most noteworthy discoveries in all branches of biology and natural history having been made by medical men. Hunter had his menagerie, and collected indefatigably in comparative anatomy, and the first work from the pen of Paget was a Local Flora. These are but examples, and numberless similar ones might be adduced. Still there is, perhaps, need in the present day for a word of warning lest in any degree we fall short of the examples of our ancestors. It may be that " the world is too much with us," or, to take a more charitable view, it may be that we too conscientiously keep close to the immediate duties of our vocation. There is no denying that those duties have become more complicated, and possibly make demand or more undivided attention than was the case a century ago. There is, however, a limit to this, and if the details of professional knowledge have been multiplied, so also have the facilities for obtaining it. The practitioner who cultivates simplicity in therapeutics, even to the verge of monotony, will generally do so to the advantage of his patients, and in these days of the telegraph and railroad it is neither necessary nor advisable that every country surgeon should train himself as a specialist. There are Consultants, there are Hospitals, there are Polyclinics, and one chief art of success in practice, whether from his own or his patients' point of view, is to know when to obtain other assistance. With reasonable habits in these matters, there are surely but few whose daily practice is so absorbing as to leave no leisure for Nature Study.

EXEMPTION OF THE JAINS FROM LEPROSY.

The Jain population in the whole of India numbers 1,400,000, and on the calculation of five lepers to 10,000 ought to supply a quota of 700, but it practically supplies none. In no asylum statistics of leprosy have I ever seen the Jains mentioned. At every Leper Asylum I have visited I have asked whether they have ever had Jain inmates, and the reply has been invariably "No." I should have been inclined to suggest that no Jains ever suffered from it, were it not that native medical men have mentioned cases to me which they had known in their private practice. In mentioning these they fully admitted that such cases were exceedingly rare. Now the Jains are by far the most scrupulously vegetarian section of the Indian population. Their objections to taking life are carried to what seem to others absurd extremes. At the same time it is to be noted that they are as a rule well-to-do people, and not likely to eat bad food.

PRONENESS TO LEPROSY OF THE SALSETTE CHRISTIANS.

It is instructive to contrast this immunity of the Jains with the remarkable liability of the Roman Catholics. In the Bombay Leper Asylum (Matunga) there are many inmates of the class termed "Salsette Christians." In the Report for 1897 (the most recent before me) there were sixty placed under this heading, thirty-seven men and twenty-three women. Now Salsette is an island close to Bombay, and having a population of 102,000, out of which only 25,000 or less are Christians. Most of the Christians are Roman Catholics, natives who were converted by the Portuguese. As there is no compulsion to enter the asylum, probably at least half remain at their own homes, and we may not be wrong in supposing that this insignificant population supplies 100 lepers. On the calculation of 5 per 10,000 (the ratio for India) it ought to supply only 12·5. Although Roman Catholicism and its fish-fasts may have much influence in thus producing eight times as much leprosy as the average, it is probably by no means the principal cause. The Catholic population of Salsette is largely engaged in fishing and fish-curing.

J.H.

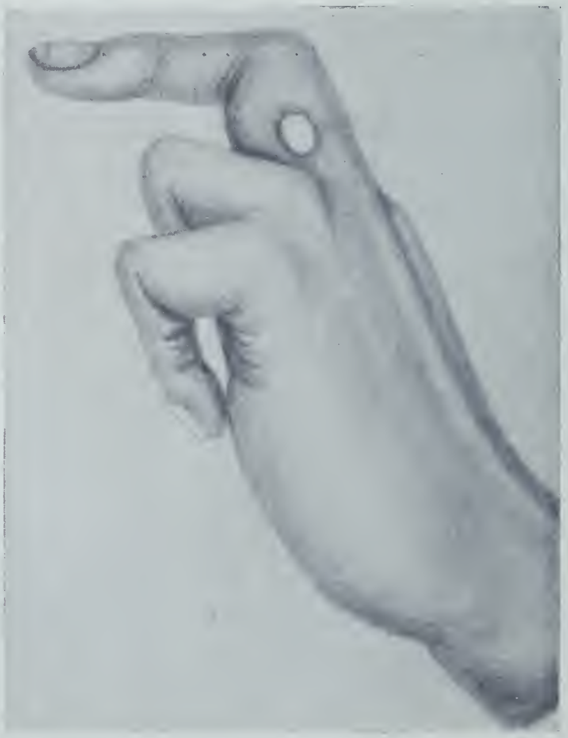
SELECTIONS FROM LECTURES DELIVERED IN THE COLLEGE.

EXTRACTS FROM CLINICAL LECTURES.

BY JONATHAN HUTCHINSON, F.R.S., LL.D.

Perforation Resulting from Necrosis of Phalanx.

The little drawing which I now show, represents the condition of a finger in the hand of man whom some of you will remember. He came to us on account of bladder trouble, but his hand interested



Perforation of a phalanx with sound healing after strumous necrosis.

me, and as I had never seen its like, we had it photographed. There was, as you see, a hole through his left middle finger, into which a cedar pencil might have been thrust. The parts were perfectly sound, and had been so for many years, and, as far as appearances went, the state might have been congenital. It was, however, the result of necrosis of bone in earlier life. Several bones had then been affected, and the history pointed to struma. A shell of new bone had surrounded the necrosed portion, with a large cloaca on each side. The sequestrum was no doubt allowed to remain long in place, and meanwhile a strong resistant bridge of new bone had formed in the palmar aspect, which refused to bend backwards when, finally, the dead portion was taken away. Hence a bone much wider from before backwards than natural, and with a big hole through it.

On Some Exceptional Forms of Diffuse Lipomatosis.

We are familiar with the commoner forms of what is known as diffuse lipoma. In these there is symmetrical overgrowth of the subcutaneous fat in the nape and in various other regions of the neck, and now and then on the pubes. The great lumps of fat are almost always symmetrically arranged. The patients are always men, and almost always drinkers of beer. When the beer is given up the masses of fat diminish.

We have just had before us an example of this kind of lipomatosis which deviates in some features from the more common type. Its subject, a man of 36, was sent to me in June last by Mr. Jordan Lloyd, of Birmingham, who had been much interested in it. The man was of Semitic race, short, and stout, and admitted that he had taken both whisky and beer freely. He had recognised the lumps on his neck for about two years. A peculiarity in his case was that the lumps were isolated, and some of them very firmly fixed to the bone. This fixedness occurred chiefly at the back of the mastoid processes, and had even suggested the diagnosis of sarcoma of the bone. From these processes there extended across the occiput firm ridges of thickened scalp, which could be taken between finger and thumb, and did not appear to contain any fat. Lower down, deeply placed behind the sterno-mastoids, were other firm but rather flabby masses, which felt like glands. Over the parotids were ill-defined masses of fat, and when I add a large double chin, I think I have mentioned all. I prescribed arsenic with aperients, and forbade beer. On September 12 he thought the lumps smaller, but they had been rather painful. His tongue was furred and appetite bad. I found that he had been taking whisky and claret instead of the forbidden beer. I now forbade them also. On November 21, under the abstinence *régime*, and still taking arsenic, quinine, rhubarb, and nux vomica, he was delighted with his progress. The lumps were all much smaller, some of them not easy to be distinguished, and his appetite and general tone were good.

Grateful for what he was pleased to consider his cure, although it was only a partial one, this patient subsequently sent to me another very similar case. The man was of the same race, and the history and conditions were much the same, only not so marked. In this instance one of the masses over the occiput had been excised, and the operator was good enough to write me a letter stating that he had found the lump closely adherent to the bone. During the dissection the post-occipital nerve was exposed, and there had been some troublesome hæmorrhage. Since the operation the man had suffered much from neuralgia in the region of the scalp supplied by the nerve named. At first there had been numbness, but latterly there had been distressing pain. It was eighteen months since the operation, and the pain was increasing. It had been proposed to cut down upon the nerve and excise a portion, and in this I fully concurred, advising, however, that in the first instance full doses of quinine and arsenic should have a trial. It is to be observed that in this case the mass of fat was not very large, and was to some extent isolated. The excision did not extend to the left side, where, indeed, the adipose hypertrophy was not considerable.

The lesson of the two cases taken together is, I think, distinctly this, that dietetic and drug treatment are preferable to the knife, and that the latter should be avoided if the lumps of fat appear to have deep adhesions.

I may just add that in some of these cases there is definite hypertrophy of the scalp quite without fatty growth; whilst in some others there is enlargement of lymphatic glands of a simple hypertrophic rather than an inflammatory nature. Arsenic, alkalies and abstinence from alcohol, are the measures indicated for all these, and are generally successful. I would never excise unless the masses were cumbrous and disfiguring, and had also resisted medicinal and dietetic treatment.

Progressive Muscular Atrophy after Exposure to Cold.

The objective symptoms in the case which is before us are a loss of roundness of the right shoulder and a wasted state of the arm. On making the man put his several muscles into action, we find that he cannot use his deltoid, biceps, coraco-brachialis or brachialis anticus. Although by the aid of other muscles he can accomplish, feebly, almost all the movements for which you might suppose these muscles to be essential, yet it is certain that they themselves remain relaxed and flabby. His subjective symptoms are pain in the affected muscles, and numbness in the skin over the whole deltoid region and on the radial side of the front of the forearm. I need not tell you that these symptoms point to paralysis of the circumflex and musculo-cutaneous nerves. All the other nerves and their muscles appear to be intact, and he can accomplish with his arm far more than you might expect from what I have said. He keeps at his occupation as coachman and gardener, though he acknowledges much difficulty in lifting and holding heavy or bulky things.

We will listen to his own statement as to what he believes has led to his condition :—Last January, during frosty weather, in the course of his occupation as gardener, he had occasion to take some flower-pots out of a tub which was frozen over. He broke the ice, and was engaged for a few minutes in plunging his hand repeatedly into the cold water. The result was that his fingers turned white, and ached with pain, which was almost more than he could bear. They did not recover for some days. He was obliged to keep a glove on that hand, and could not get it warm.

I feel little doubt that the case will prove to be one of progressive muscular atrophy, and the history of a definite peripheral cause has seemed to me worthy of mention. We shall, I hope, see the man again.

NOTICE.

A meeting will be held at The Polyclinic on Friday, May 15, at 2.30 p.m., when Mr. Hutchinson will report the results of his recent tour in India for the investigation of Leprosy. Discussion will be invited. The Right Hon. Lord George F. Hamilton, P.C., M.P., Secretary of State for India, has kindly consented to take the Chair.

NOTES OF CASES DEMONSTRATED IN THE CONSULTATION THEATRES.

MEDICAL CASES.

BY C. THEODORE WILLIAMS, M.D., F.R.C.P.

Tuesday, March 24, 1903.

Malignant Disease of the Stomach.

THE recent history of this case afforded an impressive illustration of the rapidity with which the physical evidences of tumour of the stomach may be added to the symptoms of gastric dyspepsia. The patient first attended the Polyclinic in the early part of February. He then complained of pain after food, with occasional vomiting. His age, 46 years, and some evidences of loss of flesh, caused the physical examination of the abdomen to be made with particular care, but no tumour could be discovered. Now there is a considerable mass in the left hypochondriac region, and the patient has lost weight to the extent of 14 lbs. within the last six weeks. The case thus shows the necessity for frequent physical examination in cases of dyspepsia occurring in patients who have reached middle-life. A single examination with a negative result is not sufficient. A tumour may exist, but may be concealed by distension of the intestine, rigidity of the abdominal wall, etc.; or, as in the present instance, there may be no physical signs of malignant disease at the first examination, and yet in the course of a few weeks a considerable growth may have made its appearance.

A Large Intra-Pulmonary Cavity.

The patient was a man of 24 years. So long as twelve years ago he was told that he was the subject of phthisis pulmonalis. Acting mainly under his own guidance he has practised for years the "open-air treatment," with the result that, though he has an enormous cavity in the upper part of his right lung, he enjoys a fair measure of health, and is generally well nourished. Dr. Williams directed particular attention to the ease with which the patient expectorated large quantities of highly purulent sputa. This, he suggested, had probably been an important influence in saving the patient from auto-infection of the left lung and of the lower part of the right lung. The cavity has doubtless a well-defined wall due to fibrotic changes; this prevents extension of the disease by contiguity of tissue, and the easy discharge of the secretion lessens the chance of the bacilli being carried into new lung areas by the inspiratory current. Further, the same consideration bears upon treatment. No advantage would be gained by tapping, as the drainage of the cavity *per vias naturales* is effected successfully and easily. In the case of large basic cavities, where the expulsion of the sputa is effected with much difficulty, it may sometimes be advisable to incise and drain the cavity through the chest wall. This procedure will not be followed by closure of the cavity, but it will conduce to the patient's comfort, and will diminish the risk of infection of fresh lung areas. In the present case, the large size of the cavity and the firm wall surrounding it make the chance of contraction a small one. It is, however, reasonable to expect that so long as the sputa continue to be readily discharged the patient will escape the danger of further infection, and he may thus enjoy many years of life in comparative comfort. Apart from the employment of measures calculated to promote the general health, there is nothing very active to be advised, but a mixture containing ammonium carbonate, spirit of ether, and compound tincture of benzoin, is likely to be useful in promoting free expectoration.

Speaking on the general question of the infectiousness of tuberculosis, Dr. Williams argued that the facts of experience showed that though the disease is undoubtedly infectious it is so only in a low degree. He questioned the statement that there is danger in talking to consumptive patients in consequence of ejection in the expiration of "droplets" containing tubercle bacilli. The freedom of the staffs of chest hospitals from the disease is sufficient to show that there is no appreciable risk from this source. The preservation of personal vigour and good general health is the best protection against the disease.

BY HARRY CAMPBELL, M.D., F.R.C.P.

Tuesday, April 14, 1903.

A Case of Thoracic Aneurism.

The clinical value of this case was (1) to enforce the rule that unilateral pain affecting the trunk in an adult, more especially when obstinate in duration and referred always to the same situation, should invariably excite the suspicion of an aneurism; and (2) that careful observation of small points may issue in the collection of a number of facts sufficient to justify a secure, though constructive, diagnosis, even though any one of the facts taken separately may have no decisive significance. The patient was a man of 50 years; he had suffered from some form of venereal disease twenty years or more ago, and his sole ground for complaint was pain extending from the left interscapular region downwards and forwards over the lower left chest. The pain had troubled him more or less constantly for nearly five years, and had always had the distribution just described. There was no very obvious condition to explain the existence of the pain, but a careful physical examination detected the following facts:—The cutaneous venules in the lower left intercostal spaces were somewhat more prominent than the corresponding ones on the right side; the inspiratory movements of the left chest were relatively deficient; the cardiac impulse was found in the sixth space; there was no cardiac murmur, but the second sound was unusually emphatic, and this was specially observed in the upper part of the left interscapular region; the respiratory murmur in the left chest was less abundant than in the right; the patient could easily flex his spine towards the left but not to the right —an attempt to perform the latter movement produced what he called "a tearing sensation." It was argued that these facts showed the presence in the left side of the thorax of something which had displaced the heart downwards, and which interfered with the free movements of the ribs, the full expansion of the left lung, and the normal flexibility of the spinal column; also that the condition most likely to explain these effects, and the pain, was an aneurism of the descending (thoracic) aorta. To test this diagnosis a skiagram had been taken, and this revealed considerable enlargement of the aorta, especially in the portion of the vessel in the neighbourhood of the "root" of the left lung. It is noteworthy that pain was the only symptom of which the patient made complaint; also that pain had existed for so long as five years without the evolution of any other suggestive fact. Aneurism in the descending part of the thoracic aorta is particularly liable to exist without distinctive symptoms or gross physical signs, and this case is a good clinical example of the care in observation which is necessary to avoid serious diagnostic error.

An Example of Intracranial Gumma.

The patient, a woman of 32 years, had complained for four months of pain in the left frontal region and left face; she had also had attacks of vomiting, which occurred without direct relationship to the taking of food and were unattended by nausea; and recently she had observed some dimness of vision, which was found by the ophthalmoscope to be associated with double optic neuritis. A combination of localised headache, vomiting, and double optic neuritis means in the great majority of cases an intracranial tumour. It is true that anæmic girls often suffer from headache, that as a result of associated gastric disturbances they are frequently troubled with vomiting, and that occasionally in such patients double optic neuritis is found. Such a possible interpretation of a case showing these three conditions ought to be borne in mind. But it could not be applied to the present patient. In the first place, the woman was not of the age when chlorosis is common; secondly, she showed little or no evidence of anæmia; thirdly, the pain in the head was strictly localised and unilateral, and was not, as is usual in anæmia, referred to the vertex; and fourthly, there were no evidences of dyspepsia—no pain or discomfort after food, and the vomiting occurred quite apart from the taking of food. If any doubt of the existence of an intracranial tumour could still remain, it was at once dissipated by two further facts, which not only pointed to the existence of a gross organic lesion, but suggested its situation. The first of these was an area of tenderness over the left fronto-temporal region —not a widespread tenderness involving the whole of the left side of the scalp as may be met with in neuralgia, but confined to a strictly limited region. Such a condition has considerable localising value in a diagnosis of intracranial tumour; the fact that the patient complains of pain in a certain part of the skull does not mean much in reference to the site of a tumour, but a definite area of tenderness has considerable significance in this direction. Another fact in the case of great moment was the history of two or three "fits," each of which involved the right side of the tongue and extended thence to the right upper limb, suggesting some gross lesion in the neighbourhood of the motor centres for the tongue and upper limb. Thus there could be no doubt of the existence of a "tumour" involving the anterior part of the left cerebral hemisphere. Concerning the nature of the tumour there was no direct evidence. The woman was married and had given birth to three children, all of whom were born dead, but it was said that in each instance "the child had come the wrong way"; there was, however, a history of one miscarriage. The only other suggestion in this direction issued from the results of treatment. The woman had been given potassium iodide, and under this the pain had disappeared, and the sight considerably improved. Dr. Campbell urged the advisability of large doses of potassium iodide in syphilis of the central nervous system. He prefers to order at once a dose of one dram repeated four times in the twenty-four hours.

A Case of Tabes Dorsalis.

A considerable number of cases of tabes dorsalis without ataxia have been seen at our cliniques and reported in the Journal. Dr. Campbell's case represented the opposite side of the shield. It was one in which ataxia was so extreme that the patient could only walk when supported on either side. Another interesting feature was a decided thickening on the dorsal aspect of the bones of the left tarsus. This had been present for several years and had been at times attended with much pain. Dr. Campbell suggested that the condition was essentially trophic in nature and was thus comparable to the bony thickening which attends Charcot's disease of joints. The muscles on the extensor aspect of the left leg were atrophied, but gave normal reactions to electricity. This last fact opposes the view that the atrophy depends on a spinal lesion in the anterior cornu, and hence it was concluded that either the atrophy is a consequence of disuse, or it is a reflex result of the lesion of the tarsus—it being a familiar experience that disease of a joint is often followed by wasting of the muscles, and especially of the extensor muscles, in its neighbourhood. The presumption is that the joint lesion, through afferent nerves, produces some disturbance in the spinal centres, and that one of the results of this disturbance is muscular wasting.

Other patients included (1) a man with cervico-brachial neuritis accompanied by atrophy of the scapular muscles; (2) a girl suffering from epilepsy, and in whom pigmentation of the skin had been observed, the latter presumably due to the arsenic which had been prescribed to prevent the evidences of bromism.

BY JAMES TAYLOR, M.D., F.R.C.P.

Tuesday, April 21, 1903.

Three Cases of Hemiplegia.

THESE three cases illustrated in their several aspects various diagnostic and other practical questions which may arise in connection with the occurrence of hemiplegia, more especially when this develops in adults who have not reached middle life, and in whom, therefore, senile degeneration of the cerebral vessels leading to hæmorrhage or thrombosis is, as an explanation of the paralysis, a highly improbable event.

The first patient, a man of 32 years, was hemiplegic on the right side, and this condition had existed for some months. It appeared, however, from the history, that he had first been paralysed on his left side, had recovered from this, and then, at a later date, had developed his present condition of right hemiplegia. The first attack occurred about a year ago and was somewhat sudden in onset, but was not attended with loss of consciousness. In the course of a month the paralysis had disappeared and the patient was able to resume his work. After some months' interval of apparent good health, he began to be troubled with severe headaches and with attacks of giddiness. Later, he had a series of fits affecting the right limbs, and after these passed off the limbs were found to be paralysed. Regarding the site of the lesion responsible for the right-sided paralysis, it must be recognised that the occurrence of convulsive seizures in the limbs antecedent to the paralysis raises a strong presumption that the lesion in the left brain involves the cortical motor areas. Another fact in the case can be quoted in favour of this view. The patient, it appears, had made some complaint that his vision was defective; and on testing the visual field, it was found that the right half of each was blind, that is to say, there was right homonymous hemianopsia. Such a condition necessarily means a lesion of the left visual path behind the optic commissure. As the pupil responses were normal, the lesion cannot be in the optic tract, but must be situated either in the optic radiations in the posterior extremity of the internal capsule, or in the nerve centres in the cerebral cortex. Now a lesion in the internal capsule, it might be said, will explain the hemiplegia as well as the hemianopsia; but against such a view of the case was the fact that the sensory functions of the paralysed limbs were not disturbed. Therefore it had to be allowed that the sensory pathway in the internal capsule must be intact. But the sensory pathway in the capsule lies between the motor tract in front and the optic radiations behind. A lesion of the capsule, it is true, by involving the motor tract might explain the hemiplegia, and equally, by involving the optic radiations, might explain the hemianopsia; but from a lesion so situated, the sensory tract, lying between these two points, could hardly escape. Hence the combination of hemiplegia, hemianopsia, and *absence of hemianæsthesia*, does not find an explanation by presuming a lesion of the internal capsule. But if the optic tract and optic radiations are excluded, the cause of the right homonymous hemianopsia must be referred to the occipital lobe of the left cerebral hemisphere. Such a conclusion obviously strengthens the view arising out of the clinical sequence of one-sided fits followed by paralysis, namely, that the lesion in this patient is one which involves the cerebral cortex. Circumstances associated with the paralysis, and circumstances associated with the hemianopsia, point equally to a cortical lesion. If this is a correct conclusion, the lesion must be a very extensive one. It must reach so far forward as to involve the motor areas, and must extend posteriorly over the occipital lobe (half-vision centre). So widespread a lesion can hardly be other than meningeal thickening, the result of gummatous inflammation or deposit. Hence the steps which lead to an anatomical diagnosis in this case, lead at the same time, and with equal confidence, to a pathological diagnosis. The case, presented in brief, is one of right hemiplegia (preceded by right-sided convulsions) with right homonymous hemianopsia but without hemianæsthesia, due to widespread syphilitic meningitis over the convex surface of the left cerebral hemisphere.

With such a view of the position, the earlier and transitory attack of left hemiplegia can be readily harmonised. All that is necessary is to suggest the existence of specific endarteritis in the cerebral vessels; the blocking of one of these so as to interfere with the nutrition of some part of the motor tract in the right brain; and the comparatively rapid recovery of the affected area, the obstructed vessel being presumably so small that the ensuing damage was neither considerable nor permanent.

In the second patient, a man of 38 years, there were, in addition to right hemiplegia, tremor in the right upper limb, and obvious mental deficiency. The tremor did not for a moment suggest athetosis, but consisted of somewhat large oscillatory movements. The onset of the condition dates from June, 1902. At that date the patient had a right-sided fit affecting more particularly the muscles of the neck and upper limb. Afterwards, gradual weakness of the right limbs and steadily increasing mental hebetude were observed. Such a sequence of events suggests the existence of an intracranial neoplasm. No more direct evidence of this could be found on examination, but it was observed that the patient had aortic disease (systolic and diastolic murmurs), and the view was advanced that from this it might be concluded that the cerebral vessels were also degenerated, and that one of these might, therefore, conceivably be the site of an aneurism. A tumour of this nature, by its gradual enlargement, might well be responsible for the increasing paresis and progressive mental defect. The clinical history, it need hardly be said, does not in the least incline the diagnosis towards embolism, secondary to aortic disease, as the explanation of the hemiplegia. Regarding the tremor, it must be allowed that this, in the form manifested by the patient, is a most unusual attendant of hemiplegia. Dr. Taylor quoted a parallel experience in which the lesion was found subsequently to involve the optic thalamus.

Another view which might be taken of the case is that it is one of general paralysis of the insane, in the course of which disease hemiplegia sometimes occurs. The fact most strongly supporting this view is the patient's mental condition. In addition it was noted that there were some twitching movements of the lips, face, and tongue when the patient was asked to grin so as to expose his teeth, and also when he protruded his tongue. Such facts are well known among the early events of general paralysis.

The third patient was a man of 29 years; he was hemiplegic on the left side. In the spring of 1901 he began to be troubled with headache, and some months later he had a fit which involved the left side of his face and left limbs, and was followed by paresis. There have since been three other fits all attended by unconsciousness, and in each of them the first event was twitching about the left eyelids and left angle of the mouth. In addition there have been numerous occasions on which these spasmodic facial movements have occurred without any subsequent convulsive attacks in the limbs. Hence there could be no doubt of the presence of a "tumour" situated over the right motor cortex and having its maximum prominence over the centres for facial movements at the lower extremity of the Rolandic fissure. The fact that the facial spasms preceded each of the more extensive seizures, and that they often occurred without further development of convulsive attacks, is sufficient to establish the anatomical diagnosis as just defined. A parallel statement cannot be made with equal confidence when attacks of Jacksonian epilepsy commence in the hand. This may possibly mean that the maximum site of irritation is situated over the hand centres, but such an event is quite compatible with the situation of the tumour mainly over the leg centres or elsewhere in the neighbourhood of, but not actually over, the centres for the upper limb. The explanation is that the centres commanding the hand movements are the latest motor centres to be developed in the evolution of the animal series, and that, corresponding to their late development, they exist in a state of less stable equilibrium than that present, for example, in the centres commanding the lower limb. Hence an amount of irritation sufficient to cause the discharge of nervous impulses from the centres of the upper limb, may leave those of the lower limb in a relatively passive state. From this it follows that a tumour impinging mainly on the leg centres *may* produce convulsions which commence in, and affect principally, not the leg movements, but those of the hand. Hence, as stated above, the significance of convulsions commencing in this situation is not an absolutely precise and definite one. In the present patient, however, there was no difficulty of this kind, as the order of events showed the main site of irritation to be over the centres associated with facial movements. Concerning the cause of this irritation, the age of the patient, a history of syphilis, and recent improvement under potassium iodide, combined to prove this to be a gumma, developed presumably in the cerebral meninges.

A Case of Tabes Dorsalis.

The interest of this case was the early stage of the disease which it exhibited and the limited amount of evidence available for the diagnosis. In ordinary circumstances, indeed, the patient, a man of 30 years, regarded himself as in good health, but on several occasions, after a spell of unusually heavy work, he had experienced some difficulty in walking, had complained of pains round his chest, and had been troubled with double vision. Examination detected defective light response in each pupil, and almost entire absence of the knee jerks. There were no other objective signs of nervous disease; but the two just mentioned are, particularly in view of the patient's subjective experiences, quite sufficient. Ataxia, as is usual when there are no pains in the lower limbs, was not present even in the slightest degree. There was no history of syphilis, and the patient is the father of several healthy children. Discussing the treatment, Dr. Taylor advised the use of tonics, such as strychnine and arsenic. When tabes dorsalis commences with a sudden and marked development of symptoms, it may be presumed that there is some definite syphilitic new formation, which mercury and potassium iodide may assist to remove. But a gradual and insidious commencement must mean, on the other hand, not a specific inflammation or deposit, but a degeneration of the nerve elements, and in such a case heroic measures are useless or even harmful.

The Diagnosis of Functional Nervous Disease.

At Dr. Taylor's demonstration on February 24 (see POLYCLINIC for April, p. 150), there were shown two patients, in connection with each of whom the diagnosis of functional nervous disease was raised and discussed. Whilst the absence of positive evidence of organic nervous disease was admitted, Dr. Taylor particularly emphasised the necessity for exercising great caution before adopting functional disease as the interpretation, merely because at one examination no proof of structural disease could be detected. He insisted upon the advisability of repeated examinations and of continuous observation, such as is alone possible in a hospital or nursing home. The event in one of the two cases has produced a striking illustration of the importance of these statements. The case is that of a man who exhibited a most extraordinary, and it would have been easy to say an obviously artificial, gait, but no other sign or symptom of organic disease. He had received an injury to his right arm some months previously, and as a question for compensation might possibly arise, it would not have been difficult to suggest a motive for his curious performance. It is indeed, probable, that all who saw the patient inclined in a very decided fashion to the opinion that the man was wilfully making an exhibition of himself. What is the sequel? The patient was taken into hospital. For a fortnight he remained unchanged, and naturally the diagnosis of functional disease seemed to be definitely inevitable. But immediately after this date a further systematic examination of the patient detected an extensor response (Babinski's sign) of the big toe on stimulation of the sole. Very shortly afterwards double optic neuritis developed, and the man is now in a semi-unconscious condition and passes his evacuations under him. He is without doubt the subject of grave organic intracranial disease. A more dramatic illustration of the necessity for caution in dealing with what appear to be cases of functional nervous disease it would be impossible to imagine.

SURGICAL CASES.

BY JONATHAN HUTCHINSON, JUNR., F.R.C.S.

Thursday, April 9, 1903.

Tumour of the Frontal Region in an Infant.

THIS case presented an interesting problem in diagnosis. The patient was a vigorous, well-nourished infant of seven months, and the question to be decided was the nature of a tumour about the size of a marble which projected forwards immediately above the inner end of the left supraorbital margin. The tumour gave a sense of fluctuation when handled, it appeared to be adherent to the bone or periosteum, and the skin over it was unchanged, or, at most, had a slight degree of purplish discoloration. The possibilities discussed included nævus with cystic degeneration, meningocele, and dermoid cyst. The first was excluded on the ground that the skin showed little or no evidence of vascular dilatation, and that no development in this direction took place when the child cried. Further, it was remarked, that the age of the child was opposed to such a diagnosis; cystic degeneration in a nævus is a slow and gradual process, and hence is not found in young infants. The diagnosis between meningocele and dermoid cyst was a much less confident one. Against the former was the situation of the tumour. A meningocele, with the rare exception of one which projects through the lateral fontanelle, takes origin in the middle line, and, though its more prominent extension may be to one or other side, it is almost always possible to trace the mesial situation of its pedicle. In the present instance the tumour was frankly to the left of the middle line, and it was not possible to discover any distinct connection leading from it to the mesial plane. It had, however, to be admitted that such a connection, if it existed, might be a very narrow one, and might run along the roof of the orbit to the inner orbital wall—a situation in which its detection by palpation might be difficult or impossible. Another fact opposed to the diagnosis of meningocele was the non-increase of tension or size of the tumour when the child cried, this being all the more conspicuous by comparison with the anterior fontanelle, which showed the usual response to forced respiratory efforts. But this negative observation was in turn accompanied by the reflection that the intracranial connection of the tumour was, if it existed at all, certainly a very narrow, and probably a tortuous one, and might possibly have become closed by inflammatory or other changes. A dermoid cyst might thus be urged as the more probable diagnosis. Such a cyst has usually a deep attachment to bone or periosteum, it has no pedicle suggesting an intracranial connection, and it is not, for obvious reasons, affected by crying efforts made by the child. Had the tumour in the present instance been situated, not at the inner, but at the outer extremity of the supraorbital ridge—the latter being a relatively common situation for dermoids—there could hardly have been any doubt about the diagnosis. But, the position of the tumour being near to the middle line, it became necessary to consider the possibility of meningocele, and though no positive facts in support of such a view could be discovered, it cannot be said that the possibility is absolutely excluded. It can, however, be concluded with safety that the tumour is either a dermoid cyst or a meningocele, and that, if the latter, the connection between it and the cerebral meninges is a very slender one, and has, perchance, an occluded lumen. This conclusion is quite sufficient for purposes of treatment. If on incision the tumour is found to be a dermoid, all that is necessary is to dissect it out, being particularly careful to remove every particle of the capsule. The same measure is required in the event of the tumour proving to be a meningocele. Should an open communication with the sub-arachnoid space be discovered, measures to close this would have to be taken, but these are not by any means beyond the resources of the surgeon. The risk of operation in cases of meningocele is now known to be much less than was, until a few years ago, believed to exist. Many cases have been operated on with complete success. Aseptic precautions reduce the chance of meningitis to a minimum, and further, it is known that should a sinus unfortunately remain, the continuous leakage of cerebro-spinal fluid is quite compatible with life and even with good health. Mr. Hutchinson quoted in support of these statements Dr. StClair Thomson's cases of persistent dropping of cerebro-spinal fluid from the nostrils, due, presumably, to an opening in the meninges in the neighbourhood of the cribriform plate of the ethmoid; also an instance of an adult with a large meningocele over the root of the nose, who, on two occasions, ruptured the tumour by striking it against some hard object, this rough surgery being entirely unattended by bad results. Reviewing all the facts, Mr. Hutchinson advised that, in the present case, nothing should be done for six months, and that then, if the parents wished it, the tumour should be dissected out. There is no question of urgency, and in these circumstances it is perhaps well to wait until the child is somewhat older.

False Joint after Fracture.

This was found in an upper limb which had been removed in consequence of the severe pain produced by a scirrhus growth involving the cords of the brachial plexus. The patient, an elderly woman, had, some forty years ago, fallen and hurt her shoulder. It was now seen that there had been a fracture of the bone close to the head of the humerus, and that here a false joint had been formed. The opposing surfaces of the fractured bone were smooth, and were covered by cartilage-like material, so that they moved easily and freely the one on the other. Between them was a joint-like cavity surrounded by a fibrous capsule. The patient, it is to be noted, enjoyed almost the same freedom of movement as that which obtains at a healthy shoulder joint.

Fracture by Crushing.

Mr. Hutchinson also showed a foot which he had amputated in consequence of an accident in which the whole weight of the body had apparently been driven downwards through the tibia against the foot. The degree of the destructive force was shown by the fracture of the sustentaculum tali and the rupture of the inferior calcaneo-scaphoid ligament. Attention was also drawn to the appearance of the bones on section, as showing a crushed condition of the cancellous tissue. Such a condition is one of the most serious results of fracture. It means, almost inevitably, early necrosis, and it is this consideration which gives to fractures produced by crushing so serious an aspect.

DISEASES OF THE EYE.

BY E. TREACHER COLLINS, F.R.C.S.

Friday, March 13, 1903.

Paralysis of the Cervical Sympathetic following an Abscess in the Side of the Neck.

Henry J. H., aged 6 months, was brought on account of a slight drooping of the left upper eyelid. The mother stated that two months previously an abscess had formed on the left side of the child's neck, and that this had been lanced; shortly afterwards it was noticed that the child did not open his left eye as widely as his right.

Examination showed the site of the incision in the shape of a scar situated about the middle of the posterior border of the left sterno-mastoid muscle; also, on the same side, slight ptosis, slight displacement backwards of the eye-ball in the orbit (enophthalmos), and inequality of the pupils, the left being smaller than the right.

These symptoms, it was pointed out, are just the opposite to those which follow the application of a drop of a solution of cocaine to the eye. The upper eyelid is then retracted, the eye looks a little prominent, and the pupil is dilated. The unstriated muscle-fibres supplied by the cervical sympathetic, viz., Müller's muscle-fibres in the upper eyelid, Müller's muscle-fibres about the spheno-maxillary fissure, and the dilator fibres of the iris, being stimulated by the drug.

The presumption, then, in this patient is, that these muscles supplied by the cervical sympathetic have become paralysed. It is made certain that this has occurred, by the pupil of the left eye remaining unaltered in size after instillation of a drop of cocaine solution. As the sphincter muscle of the iris is unaffected, the pupil is active to light and dilates with atropine. In this case the cause of the paralysis of the cervical sympathetic is obviously the abscess in the neck.

A parallel condition has sometimes been met with after stabs in the neck, also from pressure on the nerve after fracture of the clavicle. Cases occasionally occur, however, in which no definite cause can be made out.

Mr. Collins mentioned that a man, aged 35 years, came to consult him with this affection on the left side about four years ago, and that nothing could be found to account for it. There was a history of syphilis eight years previously, but no enlarged glands or anything else likely to cause pressure on the sympathetic in the neck. Some three years later, Mr. Collins heard that the man had died of rupture of an intrathoracic aneurism.

Dislocation of the Lens, Disappearance of a Portion of the Iris, and Permanent Reduction of Tension, following a Concussion of the Eye.

William C., aged 14 years, was, on May 3, 1901, cleaning a revolver, when a blank cartridge exploded and struck his right eye. He was seen the next day, and there was then on the right side swelling of the upper lid, and proptosis. There was a track of blackened conjunctiva on the inner side. No foreign body could be seen, but a hard substance could be felt beneath the conjunctiva above and to the inner side of the globe. The cornea was steamy; the pupil was large, inactive and eccentric. The anterior chamber was of normal depth, but contained blood.

The hard substance was cut down upon, and a cartridge case, $\frac{3}{4}$ in. long and about $\frac{1}{4}$ in. in diameter, was extracted with forceps from beneath the conjunctiva. It had apparently lodged between the conjunctiva and the sclerotic, the globe not having been wounded. The butt-end of the cartridge was hindermost in the orbit. After the removal of the foreign body the wound healed, and the inflammation and swelling around the eye subsided.

When the patient left the hospital some seventeen days later, it was noted that there was so much blood-clot in the vitreous that no red reflex could be obtained from the fundus. The tension was minus. The iris at the lower and outer part had disappeared from sight, the other parts of it were tremulous. Vision was equal to seeing hand movement only. As the blood cleared up from the vitreous, the lens was found dislocated upwards and inwards. At first it was clear, but had subsequently become opaque. Now the lower and outer border of the opaque displaced lens can be seen opposite the centre of the pupil. It and the iris are tremulous. The tension is —3. The iris down and out cannot be seen, the appearance being as if an iridectomy had been performed in that direction. This disappearance of a portion of the iris is to be explained by a rupture of the ligamentum pectinatum, from which the ciliary muscle takes origin, as the result of concussion. On severance of the origin of the ciliary muscle in this way, contraction of its longitudinal fibres will tend to draw the iris outwards and backwards beyond the sclero-corneal margin.

As there has been no perforating wound of the eye, and no intraocular inflammation, there is no risk of sympathetic ophthalmitis. The eye is not painful, and, though practically blind, it is of more use to the patient than an artificial one, so that it is not proposed to remove it.

Three Cases of Zonular Cataract.

Three patients, aged respectively 16, 17, and 22 years, all came complaining that their sight had been defective as long as they could remember. On testing it was found to be considerably less than normal, and only improved slightly, if at all, with glasses. The pupils were then dilated with homatropine, and on examination by oblique and reflected light it was found in each case that the lens presented a zone of opacity surrounding a clear central nucleus.

In all three patients there existed a defective, worm-eaten appearance of the enamel of the teeth, more especially of the first molars and the lateral and central incisors. In all three, also, there was a history of fits in infancy, and of backwardness in commencing to walk.

The worm-eaten condition of the enamel of the teeth is due to a defective deposit of lime salts in the enamel organs. This deposit normally takes place in the teeth most often affected during the first two years of life, that is, during the time at which the fits occurred. It is most probable that the change in the lens, which is so frequently associated with these other two symptoms, also takes place in infancy, and that all three symptoms are due to malnutrition from improper feeding.

Rickets, which is also due to improper feeding in infancy, is a common accompaniment of zonular cataract, and in the Australian colonies where rickets is less frequent than in England, zonular cataract is rarely met with.

Two forms of operative treatment are employed in cases of zonular cataract:—

(1) Iridectomy downwards and inwards to enable the patient to see through the clear zone of the lens outside the layer of opacity. This is only applicable where the area of lens involved by the opacity is very small. It has the disadvantage of considerably disfiguring the appearance of the eyes, and also of being altogether useless should the opacity increase in area or density.

(2) The removal of the lens by the operation of needling, and, subsequently, if necessary, of currette evacuation.

After the removal of the lens the patient has the disadvantage of being unable to accommodate, and has to have glasses of two different strengths, one for distant and one for near vision.

Mr. Collins stated that if vision equals $\frac{6}{18}$ through the opacity in the lens, he considered it better for the patient to put up with the defect rather than lose the power of accommodating.

In two of these patients vision was only equal to $\frac{6}{24}$. In these, therefore, Mr. Collins proposed to remove the lens, whilst in the third, who could see $\frac{6}{18}$, he did not advise operation.

BY SYDNEY STEPHENSON, F.R.C.S.EDIN.

Friday, April 3, 1903.

A Case of Albinism.

THE patient, a child aged 4 years, presented flaxen hair, white eyebrows and lashes, light-hued irides, and "pink-eyes." With the opthalmoscope the finest ramification of the choroidal vessels could be recognised, and the optic papilla (by contrast) appeared dark. There was some photophobia; nystagmus was present, and there was a considerable degree of ametropia. Curiously enough, there was no family history of albinism. Mr. Stephenson pointed out that some of these patients become pigmented as they grow older. Treatment by stenopæic slits and correction of the associated ametropia is sometimes helpful. He also alluded to cases of so-called "partial albinism" (see Nettleship, *Royal London Ophthalmic Hospital Reports*, May, 1902), where nystagmus and a condition of fundus resembling that of albinos coincided with normal pigmentation of the hair, eyebrows, and irides. In his experience, such a condition accounted for no inconsiderable proportion of the cases of bilateral nystagmus met with in children.

Cases of Interstitial Keratitis in Hereditary Syphilis.

In each of these certain peculiarities were to be noted:—

(*a*) A child, aged 11 years, who suffered from paroxysmal hæmoglobinuria, and in whom the uvula and part of the soft palate had been destroyed by phagedenic ulceration. The upper central incisor teeth were suspicious, and the family history was most suggestive of syphilis. The child's complexion was of the *café au lait* description. There had recently been a gumma on the forehead. When first seen by Mr. Stephenson, there were two yellowish-grey nodules, each about 2 mm. in diameter, situated in the limbus conjunctivæ. These were diagnosed as episcleral gummata. On using a magnifying glass, faint, deep vessels could be found in the inner half of the cornea of the other eye, the fundus of which also showed some choroiditis. The episcleral gummata proved to be the forerunners of a mild attack of atypical interstitial keratitis.

(*b*) A woman, aged 36 years, with a family history of syphilis. When first seen, the left eye was recovering from an attack of interstitial keratitis, and the right eye had been cloudy for several days. In addition to other stigmata of hereditary syphilis, there was an osseous node, as big as a nut, situated on the frontal bone. This was said to have existed since the patient was four years of age, and was thought to have become larger lately. The keratitis affected the whole cornea excepting a peripheral zone, and belonged to the variety known as "keratitis centralis," or "keratitis annularis." Vascularity was almost absent. The case had been treated mainly by intravenous injections of cyanide of mercury, to the description of the *technique* of which Mr. Stephenson devoted a few words.

(*c*) A girl of 16 years, the subject of typical inherited syphilis. Whilst under mercurial treatment, the patient developed an indurated tumour, some three inches above the elbow on the inner side of the upper arm. A sinus, surrounded by a red areola, led through the skin towards the lump, which was diagnosed as a gumma. It cleared up completely in a week under ten-grain doses of potassium iodide given three times a day. In connection with this case, Mr. Stephenson drew attention to what he called "epithelial denudations," as a sign of hereditary syphilis. These occur over larger or smaller areas of skin, the superficial layers of which have been destroyed by ulceration in infancy. They look something like the rind of a coarsely-pitted orange, and may occur alone, or, more generally, in association with rhagades at the angles of the mouth or elsewhere. They are commonest on the face or about the anus or vulva. Their clinical significance appears to be much the same as the more familiar rhagades.

Interstitial Keratitis in Acquired Syphilis.

This patient was from the practice of Mr. R. W. Doyne at the Royal Eye Hospital. He was a married man, aged 32 years. One cornea was alone affected, and the appearances of interstitial inflammation were typical. The patient himself denied syphilis. But he had been married seven years, his wife had had one child, now aged 5½ years, and since the birth of this there had been three miscarriages. Then there was the further significant fact that several months before coming under notice he had been affected with a chronic inflammation of the throat, which had destroyed the anterior pillars of the fauces and some of the neighbouring parts. The rarity of interstitial keratitis in acquired syphilis was insisted on, and Mr. Stephenson pointed out that in most of the recorded cases one eye alone had been involved, and the malady had yielded readily to specific treatment.

Tuberculosis of the Conjunctiva in a Child Four Years of Age, Cured by Exposure to the X-rays.

The conjunctival disease appeared to be primary, although secondarily some of the submental and cervical glands were involved. Tubercle B. were found both in the diseased conjunctiva, and also in glands excised from the neck by Mr. H. J. Curtis at the North-Eastern Hospital for Children. Between December 2, 1902, and March 10, 1903, the eye was exposed to the rays on thirteen occasions. The advantages of this novel method of treatment were dwelt on by Mr. Stephenson.

DISEASES OF THE SKIN.

BY J. M. H. MACLEOD, M.D., M.R.C.P.

Monday, March 30, 1903.

Case of Iod-acne.

The patient, a young woman, suffered from acne vulgaris and for this, about six months ago, her medical man had prescribed a mixture containing iodide of potassium. The exact dosage was not ascertained, but after she had been taking the medicine for a fortnight, a number of nodules came out about the nose and chin, several of which contained pus. The patient was demonstrated at the Polyclinic six months ago, when the eruption was at its height, and a photograph of her face taken at that time was shown. The case was again brought before the members to show the effect of the treatment. The result, after six months' treatment, has been better than was originally anticipated, and all that now remains of the large nodules, some of which had been almost as large as filbert nuts, is a slight pitting where the lesions have broken down through ulceration. The treatment which had been adopted was simply antiseptic lotions and the letting out of the pus by means of a fine tenotome passed vertically into the lesions. Frequently in the granulomatous masses associated with acne the pus is situated deep in the corium, and is encapsuled by a layer of inflammatory cells, hence the necessity of passing the knife deeply into the lesions. After removal of the pus, the face had been subjected to a course of resorcin paste, which caused it to desquamate, and this effect was the main factor in the excellent cosmetic result. Of course the iodide of potassium mixture was discontinued before the local treatment was commenced.

Cases of Skin Affections Confined to the Nose.

The cases were peculiarly instructive and interesting from the point of view of differential diagnosis. They consisted of a case of lupus vulgaris, one of lupus erythematosus, one of a late nodular syphilide, and one of a peculiar affection of the nose in a child, associated with localised hyperidrosis.

(*a*) The case of lupus vulgaris of the nose occurred in a girl of 18 years, and it began when she was 14 years of age. There were seen a number of small nodular lesions, none exceeding a split pea in size, of a brownish-red tinge, and confined to the tip of the nose, the mucous membrane not being involved. At the front of the column between the nostrils the lesions had coalesced, and there was here a crusted patch about the size of a split pea, and some loss of tissue. The type of the individual lesions, the age of incidence, and the duration, left no doubt as to the diagnosis.

(*b*) The case of lupus erythematosus was an unusually interesting one. The patient, a young woman aged about 27, was sent for consultation by Dr. Brindley James. The lesion on the nose was scarcely as large as a threepenny piece, and first made its appearance about a year ago. It had an erythematous border which faded gradually into the surrounding skin. The centre was flat and very slightly depressed, and was stippled over with white specks corresponding to the sebaceous follicles, and there were a few fine adherent scales. The patient had a weak peripheral circulation, her hands were cold and moist, and her ears were red and scaly. The case was an example of a commencing lupus erythematosus of the chronic type to which the name of "seborrhœa congestiva" used to be applied.

(*c*) The case of syphilis of the skin of the nose occurred in a man of about 35. The nose was covered with reddish-brown nodular lesions averaging about the size of a split pea. A few were also present on the upper lip, where they had a slight tendency to show a crescentic arrangement. The majority of the nodules were rounded on the surface, a few were flattened and covered with a scab. There was no definite history of syphilis, nor was there any scar present on the penis, still the appearance of the eruption left little reason for doubting its nature. The only complicating feature in the case was the fact that the patient had suffered for many years from ozæna, and the possibility of the eruption having a simple septic origin was considered. The points on which the diagnosis of a late nodular syphilide was based were the character of the individual lesions, the rapidity with which the eruption had evolved, and the slight serpiginous tendency.

(*d*) The fourth disease of the skin of the nose demonstrated was a peculiar affection associated with hyperidrosis in a boy of 10 years of age. There was a red patch involving the lip and extending upwards on the bridge and laterally to the middle of the alæ nasi. It consisted of an erythematous base fading into the surrounding skin, and on it were numerous pin's point to pin's head-sized papules of a brownish-red tinge. The patch was damp and glistening, and was dotted over with small beads of perspiration. The condition began when the boy was a few months old, and had persisted in spite of treatment. It was an example of an affection recently described by Jadassohn of Berne under the heading of "Granulosis rubra nasi." Its nature is that of an inflammatory disturbance around the sweat-coils and ducts. About twenty cases have been described on the Continent. They have all been in children who were rather delicate, and the disease has persisted till adult life, and then spontaneously disappeared.

Two cases of Ringworm.

(*a*) A case of tinea barbæ in a man. On the neck there was a raised lumpy patch which had been present for several months, and was now as large as the palm of a baby's hand. There were a few beads of pus over it and numerous lumps. An examination of one of them showed the presence of a large-spored ringworm fungus, and suggested an animal origin for the disease, but no definite history of contamination was elicited.

(*b*) A patch of ringworm on the scalp of a boy. The patch was raised, covered with a purulent crust, and felt almost as if there was pus in it. It measured about two inches by one inch, and was the only trace of ringworm on the scalp. A microscopical examination revealed the presence of the small-spored fungus of ringworm, and the purulent condition was most probably due to the secondary inoculation of pus-cocci. The treatment adopted in this case was simply fomentation of boric acid and a mild mercurial ointment, as the presence of the suppuration greatly facilitates the cure of the disease.

Pruriginous Eruption in a Child.

A case of a pruriginous eruption in a boy about ten years old. It consisted of acuminate papules, erythematous nodules, and a number of ecthymatous and pustular lesions. Numerous scratch marks were also present. The eruption was confined to the covered portions of the body, being absent from the face and hands. At first sight it suggested scabies, but a careful examination showed no burrows or acari. On questioning the mother it was found that the eruption had made its appearance when the child was about ten weeks old, had persisted ever since, and was always very much worse in spring and summer than in winter, when it almost, though not entirely, disappeared. It was not of the same character as "summer prurigo" or hydroa æstivale, as the exposed parts were quite free from eruption, and there was not the same tendency to the vesiculation which characterises the cases of that peculiar affection as described by Hutchinson, Colcott Fox, Crocker and others.

There were no urticarial lesions present, but these had occurred earlier in the history of the eruption, and the case most probably was a persistent form of lichen urticatus, the ecthymatous lesions being secondarily produced.

DISEASES OF THE NOSE, THROAT AND EAR.

BY DUNDAS GRANT, M.D., F.R.C.S.

Friday, February 27, 1903.

Case of Persistent Œdema of the Larynx.

The patient was a middle-aged woman, who, for the period of a year, had become more and more conscious of slight difficulty in swallowing. On laryngoscopic examination there was found to be enormous swelling of the epiglottis and ary-epiglottic folds, which had a greyish semi-translucent appearance suggestive of greater solidity than is present in simple inflammatory œdema. The right vocal cord could be seen in a considerable part of its extent, the left one to a very limited degree; the latter was apparently slightly hampered in its mobility. A bulbous œsophageal sound was passed without difficulty. The condition is a rare one, and the nature of it extremely doubtful. The appearances correspond with what has been observed in some cases of amyloid disease, but no definite evidences of this could be detected on examination of the other organs of the body. The prognosis is extremely doubtful. In a case recorded by Sir Felix Semon the condition subsided in about two years. In one presenting similar features seen by Dr. de Havilland Hall, tuberculosis developed. In the present case there is no evidence of tuberculosis, and iodide of potassium with perchloride of mercury is being administered, any change so far being rather in the direction of improvement.

Case of Modified Moure's Operation for Deflection of the Cartilaginous Portion of the Nasal Septum.

In this case there was a considerable amount of thickening in addition to deflection of the septum, and the nostril on the convex side was almost completely blocked. Dr. Grant thought, however, that the thickening might for the time at least be neglected, and he had performed Moure's operation. After forcibly straightening the septum and keeping it in position by transfixing it with a needle, he made incisions above and below, so as to allow the redundant portions of the cartilage to override each other. The needle was removed at the end of six days, and the patient found his breathing quite satisfactory. The resiliency of the cartilage had, however, not been quite overcome, and Dr. Grant was not so gratified with the result as the patient was. The object of the operation was, however, to restore the breathing, and not necessarily to give geometrical perpendicularity to the septum.

Case of Absolute Deafness with Complete Recovery.

The patient was a girl aged 16 years. She was blind, and last August had become absolutely deaf within a few hours; so complete was her inability to hear that she had learned the art of communicating with those around her by means of the deaf and dumb alphabet. The sequence of events seemed so suggestive of the case being one of hereditary syphilis that a very unfavourable prognosis was given, and the patient was taken into the Central London Throat and Ear Hospital to have the slight chance afforded by subcutaneous injections of pilocarpine. After three injections she said that she began to hear a rumbling, and after a short interval she could discern human voices, and in point of fact had recovered her hearing completely. It was thus obvious that the case was one of hysterical deafness. Dr. Grant expressed his conviction that it was not malingering, and that a careful distinction should be drawn between shamming, and the genuine functional paralysis of the auditory centres which occurs in hysteria. He thought the auto-suggestive theory of hysteria explained such cases as these.

Case of Subcutaneous Injection of Paraffin for Sunken Nose.

In this case Eckstein's syringe was used with a straight needle, and with a paraffin whose melting.point was 111° F., as recommended by Mr. Stephen Paget. Great improvement was effected in the patient's appearance, and she observed that she was able to breathe better.

Case of Epistaxis Treated by Cauterisation of the Nasal Septum.

The patient was a middle-aged woman subject to repeated attacks of epistaxis. For these her nose had at various times been plugged, sometimes in front, sometimes posteriorly. There was a cavity on the right side of the cartilaginous septum, and a vascular spot from which the blood obviously came. Dr. Grant cauterised this spot freely with solid nitrate of silver, and there had been no further hæmorrhage. He recalled the fact, which ought to be well known, that in epistaxis the blood most usually comes from a small vessel on the lower and anterior part of the cartilaginous septum, where it can be easily checked by anterior plugging, and ultimately put an end to by cauterisation of the vessel. In all cases of habitual epitaxis it is necessary to examine the urine. In a case recently referred to Dr. Grant on account of epistaxis, he had found a high degree of albuminuria.

Case of Deafness due to Myxœdema.

This patient was recently referred to Dr. Grant on account of ear disease, for which some operation had been proposed, in the hope that he might be able to find the cause of the deafness. The patient's physiognomy, notably the thickness of the lips, suggested myxœdema; and it was found further that the thyroid gland was quite impalpable. The patient had been losing her hair and her teeth, had become languid, and, what is exceptional in myxœdema, irritable and excitable. There was a combination of obstructive and nerve deafness, such as myxœdema would account for, as both the internal ear and the Eustachian tubes were affected. She was ordered half a tabloid of thyroid gland daily, and when seen on the following day appeared at this very early stage to have improved. At the end of a week she was greatly better, and there is little doubt that the diagnosis is confirmed by the result.

Case of Combined Catarrhal and Nerve Deafness.

The patient was a man, aged 41, referred for an opinion by Dr. Isaac. There was a combination of "obstructive" and "nerve" deafness, as indicated by the tuning-fork and other tests. The tympanic membrane was found to be extremely relaxed. There was considerable improvement (from contact, to 8 in., for the watch) after inflation; such an improvement is always very transient, the rapidity of its disappearance being accounted for by the relaxation of the tympanic membrane. Dr. Grant recommended that the relaxed membrane should be painted with contractile collodion, and that inflation should be practised with gentleness. The patient was found to be an excessive smoker, and Dr. Grant thought the nerve deafness might be attributable to this; he therefore advised the patient to give up tobacco, and he recommended the internal administration of tincture of cactus and nux vomica.

Case of Deafness due to the Residua of former Suppurative Inflammation of the Middle ear.

A middle-aged woman sent by Dr. McNamara complained of deafness in both ears. There was a history of previous suppuration. On examination the malleus was found to be hampered in its movements; there was a small sunken cicatrix below the umbo; and the posterior half of the membrane was found to be opaque and somewhat relaxed. There was slight narrowing of the Eustachian tube. The Eustachian catheter and bougie were recommended for the narrowing of the Eustachian tube, and the application of collodion for the relaxation of the membrane.

Case of Traumatic Deafness.

Dr. Barrett sent for an opinion a man aged 55, who had been more or less deaf since childhood, "after vaccination"; three and a half years ago he struck his forehead against a cart-wheel, and his deafness had been worse since that time. Deafness was almost complete on the right side, and there was considerable diminution of bone conduction; there was also a perforation in the membrane. Both eyes were inflamed at the age of 18, and the characteristic teeth had been lost. The patient was subject to "fits" and attacks of giddiness. Dr. Grant considered it impossible in the short time available at one interview to analyse this complicated case, in which old suppuration of the middle ear, hereditary specific dyscrasia, and traumatism, seemed to be probable factors. The prognosis was most unpromising, and the only recommendation as regards treatment was the administration of small doses of perchloride of mercury, which, apart from any other indication, was often beneficial in cases of vertigo due to injuries of the head.

REVIEWS AND NOTICES OF BOOKS.

The Diseases of Warm Countries: A Handbook for Medical Men. By Dr. B. Scheube. Translated from the second German edition by Pauline Falcke, and edited by James Cantlie, M.B., F.R.C.S., &c. With maps, charts, and numerous illustrations, pp. 594.

Dr. Scheube's treatise has long been held in high esteem amongst those conversant with the German language, and its translation into English will make it accessible to a much larger class of readers. It is an indispensable addition to the library of every medical man residing in the Tropics, and is also full of interest for the English practitioner. The free, and daily increasing, intercourse between our Colonies and the Mother Country brings almost all forms of Tropical disease under the occasional observation of British physicians, and for these the present work will be invaluable as a cyclopædia of the most recently observed facts.

We will make no comparison with Dr. Manson's admirable and tersely expressed little treatise, other than by saying that the present work is much more detailed and elaborate. Its author was for long a professor in the Japan Medical School at Kioto, and has also had experience in other regions. He is at present State physician and sanitary adviser at Greiz. His treatise on Beri-beri, published before the present work, has been long well known.

The mention of Beri-beri reminds us that the abrupt separation of Tropical diseases from those of temperate regions is rapidly becoming worse than useless. Beri-beri has occurred in local, and apparently *de novo* epidemics in Ireland; leprosy, which abounds in Norway, Iceland, and Siberia, cannot be claimed as belonging exclusively to hot countries; yaws and parangi are rapidly being merged in syphilis, and even by those who still think them distinct diseases they cannot be regarded as "tropical frambœsia," since button scurvy in Ireland and sibbens in Scotland are the same malady. So also we may believe with confidence that "tropical phagedæna," "tropical aphthæ," "sprue," and many other maladies which find their more exaggerated representations in hot countries, are by no means confined to them. We put forward these considerations as a plea for the wide study by the British practitioner of all forms of disease supposed to be "tropical," feeling sure that he will find in doing so that he gains fresh light on the everyday maladies of his native land. For such study he can have no better companion than Dr. Scheube's volume.

Concerning Miss Falcke's translation, we have nothing but praise to offer. It reads well. The lengthy sentences of the original have been judiciously re-arranged, with the result that the style becomes easy, and you forget that it is from a German pen. In so large a work a few slips must, of course, occur. On page 187 the expression "perversity of function" ought to read "perversion," and the German word Krusten ought not to have been transformed on page 554 into "eschars." At page 399 the mosquito's "sting" is spoken of. Now mosquitoes pierce in order to suck blood, but so far as we are aware, they have no "stings." Here and there occur sentences which are difficult to understand, but these blemishes are few and far between, and we mention them chiefly to prove that we have read the work carefully and compared it with the original, and that our praise is not given at random.

The work is published by Messrs. Bale, of Great Titchfield Street. It is exceedingly well got up, and we hope that their enterprise will be well rewarded by a large success in its sale.

ENGAGEMENTS AT THE POLYCLINIC DURING THE MONTH BEGINNING MAY 12.

May 12, *Tuesday.*—Dr. Theodore Williams.—Consultations (Medical) at 4 p.m. Dr. Luff.—Lecture on Differential Diagnosis, and Treatment of Chronic Joint Disease at 5.15 p.m.

May 13, *Wednesday.*—Mr. A. H. Tubby.—Clinical Consultations (Surgical) at 4 p.m. Dr. Leonard Williams.—Lecture on some Practical Points in Climatology at 5.15 p.m.

May 14, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Dr. G. Drummond Robinson.—Lecture on Uterine Displacements at 5.15 p.m.

May 15, *Friday.*—Mr. Hutchinson will present a Report of his recent investigations in India as to Leprosy. *Meeting to begin at* 2.30 *p.m.* Discussion invited. Lord George Hamilton, Secretary of State for India, will take the Chair. Sir Felix Semon.—Lecture on Acute Septic Inflammations of the Throat and Neck at 5.15 p.m.

May 18, *Monday.*—Dr. J. J. Pringle.—Consultations (Skin) at 4 p.m. Dr. E. Cautley.—Lecture on Hæmaturia in Children at 5.15 p.m.

May 19, *Tuesday.*—Dr. C. O. Hawthorne.—Consultations (Medical) at 4 p.m. Dr. Lambert Lack.—Lecture on Ozœna at 5.15 p.m.

May 20, *Wednesday.*—Mr. Johnson Smith.—Consultations (Surgical) at 4.0 p.m. Dr. Leonard Williams.—Lecture on some Practical Points in Climatology at 5.15 p.m.

May 21, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4.0 p.m. Dr. G. Drummond Robinson.—Lecture on Uterine Displacements at 5.15 p.m.

May 22, *Friday.*—Mr. Treacher Collins.—Consultations (Eye, Ear, Nose and Throat) at 4 p.m. Dr. Seymour Taylor.—Lecture on Parasites of the Gastro-intestinal Canal at 5.15 p.m.

May 25, *Monday.*—Dr. A. Whitfield.—Consultation (Skin) at 4 p.m. Dr. George Newman.—Lecture on Food Poisoning at 5.15 p.m.

May 26, *Tuesday.*—Dr. R. L. Bowles.—Consultations (Medical) at 4 p.m. Dr. W. Bruce. Lecture on Sciatica at 5.15 p.m.

May 27, *Wednesday.*—Mr. A. H. Tubby.—Consulations (Surgical) at 4 p.m. Dr. George Newman.—Lecture on Milk Epidemics at 5.15 p.m.

May 28, *Thursday.*—Dr. W. Bruce.—Consultations (Surgical) at 4 p.m. It is especially requested that cases of "Sciatica" may be brought to this consultation. Dr. C. Theodore Williams.—Lecture on the Diagnosis of Pulmonary Tuberculosis at 5.15 p.m.

May 29, *Friday.*—Dr. Jobson Horne.—Consultations (Eye, Ear, Nose and Throat) at 4 p.m. Dr. Seymour Taylor.—Lecture on Parasites of the Gastro-intestinal Canal at 5.15 p.m.

June 1, *Whit Monday.*

June 2, *Whit Tuesday.*—Sir W. H. Broadbent.—Consultations (Medical) at 4 p.m.

June 3, *Wednesday.*—Mr. R. Harrison.—Consultations (Surgical) at 4 p.m. Dr. Lambert Lack.—Lecture on Nasal Polypus at 5.15 p.m.

June 4, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Mr. Reginald Harrison.—Lecture on Hæmaturia at 5.15 p.m.

June 5, *Friday.*—Mr. Marcus Gunn.—Consultations (Eye, Ear, Nose and Throat) at 4 p.m. Dr. Seymour Taylor.—Lecture on the Parasites of the Gastro-intestinal Canal at 5.15 p.m.

June 8, *Monday.*—Dr. James Galloway.—Consultations (Skin) at 4 p.m. Dr. E. Cautley.—Lecture on Diarrhœa in Infants at 5.15 p.m.

June 9, *Tuesday.*—Dr. Harry Campbell.—Consultations (Medical) at 4 p.m. Mr. G. Lenthal Cheatle.—Lecture on the Relation of Carcinoma to Nerve and Trophic Areas.

June 10, *Wednesday.*—Mr. Howard Marsh.—Consultations (Surgical) at 4 p.m. Mr. Treacher Collins.—Lecture on Ophthalmia at 5.15 p.m.

June 11, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Dr. C. Theodore Williams.—Lecture on the Etiology and Treatment of Hæmoptysis at 5.15 p.m.

June 12, *Friday.*—Dr. H. Tilley.—Consultations (Eye, Ear, Nose and Throat) at 4 p.m. Mr. Mayo Robinson.—Lecture on the Surgical Treatment of Gastric Ulcer at 5.15 p.m.

CORRESPONDENCE AND ANSWERS.

Success in Practice.

To the Editor of the Polyclinic.

Dear Sir,

Many years ago I remember talking with you on the subject of success in professional life. I told you that I had often been disappointed when I had recommended a young friend "as a family attendant" to find a few years later that he had been superseded. This had occurred sometimes when I had been especially asked to recommend and when I had named a man in whom I had great confidence. You asked me what the reasons were which patients usually alleged for such changes, and said that I ought to chronicle them for the benefit of our juniors. I did not feel much faith or hope in that direction, but nevertheless I jotted down from time to time such little items of information as came to hand and having recently had nothing better to do, I have amused myself by writing them out.

In the beginning, I may say that usually when my client was a man he laid the blame for the dropping of my protegé upon his wife or his daughters. "I had nothing against him, but somehow they didn't fancy him."

Others, however, took the responsibilty on themselves. One said, "Well, you see, I invited him to dinner and asked some friends to meet him, he talked with such confidence about things which I understood and he did not, that I felt I could not trust him in matters out of my line."

A lady alleged, "we liked your friend well enough, but he had such an awkward habit of always calling at meal-times, and we could not get him out of it."

Another said, "Well, you see, he always put his visits off till last thing and came to us so very late."

Another, "He used to talk about everything except his patient." Another, "He used to stay so long talking." Another, "He was so fond of looking at my pictures and discussing Art that I never could get him to attend to me." This fondness for Art, let me say is a foible not only of family practitioners, but of consultants themselves. One of the former once alleged to me as a reason for not calling in a specialist whom I had named, "Well, you know, he will spend most of his time in examining the engravings on the walls."

Practitioners have sometimes said to me that they believed they had given offence by calling too early in the morning, but I am bound to state that this has never been mentioned to me by a patient.

One lady, who rejoiced exceedingly at the departure of a *locum tenens* whom she knew that I had recommended, alleged in apology, "He had so little to say for himself." "Well," I replied, "but he was a good man and you might have trusted him thoroughly." "Yes," said she, "that may be, but he did not know when to go away, and to see him sit twiddling his thumbs with nothing to talk about, was really too tiresome for anything."

The conclusion which I have come to is that patients prefer business-like habits, and that attention should be carefully given to the matter in hand and for the most part to that alone; that visits should be paid as early in the day as convenient and should be brief. It cannot be necessary to add that the whole attendance should never be needlessly protracted, and that sympathy with your patient, or at any rate a sympathetic manner, should be sedulously cultivated. A lady, who adored her doctor said to me, "Of course, I know that he has plenty of other patients, but he always makes me feel as if I were the only one he cared much about."

Make any use you like of this rigmarole.

Yours truly,
AN OLD CONSULTANT.

* * *

GRANULOMA OF THE PUDENDA.—Dr. Arthur Powell gives an interesting paper on this subject in the *Indian Medical Gazette* for April, 1899, under the name "sclerotising granuloma" which he adopts from Dr. Daniels.

* * *

CONSANGUINEOUS MARRIAGES.—In a little community on the extreme Northern coast of France known as Fort Mardic it is said that nearly all the inhabitants are related to each other, and have sprung from four families who originally settled in the place. Their neighbours are of a different race and language (Flanders). Drs. Louis and Gustave Lancry made a careful examination of the population of this commune, and arrived at the conclusion that the intermarriage of blood relations was in no way prejudicial to the health of the offspring, but was of some influence in diminishing fecundity.—See *L'Union Médicale*, No. 24, 1891.

* * *

A NEW MALADY.—In the Census Report for Bombay, under the head of Religion, the reporter states that a certain number had returned their creed as "pro-Boer." He humorously suggests that those who did so mistook the column and ought to have put their entry under the head of "INFIRMITIES."

* * *

PLAGUE INOCULATION : (*Haffkine*).—"In lower Damaun at the end of the epidemic (1898) 1482 of the 6000 uninoculated were found to have died, and of the 2197 inoculated only 36 instead of 300, which would have been the death ratio if calculated in the same proportion as deaths in the uninoculated."

* * *

INDIAN TREATMENT OF BRONCHOCELE.—The details of the treatment of bronchocele in India by the biniodide of mercury ointment are that the patients should be kept facing the east sun with the neck exposed, for at least two hours after the application. The ointment is absorbed during this exposure, and its beneficial effects are soon observed. It is usual to give in the meantime tincture of iron in full doses. Operations for bronchocele are seldom required in India.

* * *

ENQUIRER.—Surgeon-Major T. R. Lewis died at the age of 44 in May of 1886. He was the discoverer of the Filaria sanguinis-hominis, and was, at the time of his death, assistant-professor of pathology at Netley.

Surgeon-Major Keegan is, we are glad to know still living. When resident surgeon at Indore, Central India, he was a pioneer in the practice of litholapaxy in India and was one of the first to employ it in children. The results which he obtained have probably not been surpassed by any of his successors.

* * *

THE JAINS AND PLAGUE.—In Bombay it has been observed that the Jains have suffered with exceptional severity from the plague. The death-rate amongst them in 1896 was announced to be 68 per 10,000. The Jains are scrupulously tender of all forms of animal life, and will not kill parasites, and even go so far as to feed rats and mice in their houses. It is presumably from the parasites of these vermin that they contract plague.

* * *

PREDISPONENTS TO PHTHISIS.—Some may remember that Rosamond, when she wished to overcome her father's opposition to her engagement with Lydgate threatened him, "You would not like me to go into a consumption as Arabella Hawley did." Nor is it, perhaps, so absolutely certain as some modern doctrinaires would have us believe that Rosamond's notions as to the etiology of tuberculosis were wholly erroneous. A recognition of the part played by the bacillus need not close our eyes to the importance of those influences which prepare the soil in which it flourishes. Amongst these, few are perhaps more influential than mental depression. Cheerful occupation, and hopeful life are of the very best tonics. Not improbably the depressions under which those committed to gaol are placed have quite as much to do in bringing on lung disease as the confinement itself.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC,

22, CHENIES STREET, GOWER STREET, W.C.

PROSPECTUS

OF THE

Composite Course of Lectures on Medicine and Surgery and their Allied Branches, April to July, 1903.

DAILY, EXCEPT SATURDAYS, AT 5.15 P.M.

April	1, Wed.	Mr. Hayward Pinch. "Diphtheria, and its Antitoxin Treatment."
,,	2, Thurs.	Mr. Hayward Pinch. "Diphtheria, and its Antitoxin Treatment."
,,	3, Frid.	Mr. Stephen Paget. "The use of Paraffin in Plastic Surgery."
,,	6, Mon.	Prof. A. E. Wright. "On Therapeutic Inoculation."
,,	7, Tues.	Mr. D'Arcy Power. "Cancer."
,,	8, Wed.	Dr. Harry Campbell. "On Cerebral Softening."
,,	9, Thurs.	Mr. Jas. Cantlie. "The Anatomy, Common Ailments of the Liver and their Surgical Treatment."
,,	10, Frid.	Good Friday.
,,	13, Mon.	Easter Monday.
,,	14, Tues.	Easter Tuesday.
,,	15, Wed.	Dr. Harry Campbell. "On Cerebral Softening."
,,	16, Thurs.	Mr. Jas. Cantlie. "The Anatomy, Common Ailments of the Liver and their Surgical Treatment."
,,	17, Frid.	Dr. J. M. H. Macleod. "The Histological Effects of the Finsen Light and X-Rays."
,,	20, Mon.	Prof. A. E. Wright. "On Blood Coagulability, and its Relation to Hæmorrhage and Thrombosis."
,,	21, Tues.	Dr. G. F. Still. "Heart Disease in Children."
,,	22, Wed.	Dr. Harry Campbell. "On States of Unconsciousness."
,,	23, Thurs.	Mr. Jas Cantlie. "The Anatomy, Common Ailments of the Liver and their Surgical Treatment."
,,	24, Frid.	Mr. Hayward Pinch. "Immunity."
,,	27 Mon.	Prof. A. E. Wright. "On Blood Coagulability, and its Relation to Œdema, and Serous Effusions Generally."
,,	28 Tues.	Dr. G. F. Still. "Chorea."
,,	29, Wed.	Dr. Robert Jones. "Mental Unsoundness Amounting to Certifiable Insanity."
,,	30 Thurs.	Dr. W. Howship Dickinson. "The Tongue in Disease."
May	1, Frid.	Dr. Louis Sambon. "Insects of Medical Interest."
,,	4, Mon.	Dr. Louis Sambon. "What is Life ?"
,,	5, Tues.	Dr. T. K. Monro. "Raynaud's Disease."
,,	6, Wed.	Mr. Treacher Collins. "Injuries and Diseases of the Orbit."
,,	7, Thurs.	Dr. G. Drummond Robinson. "Uterine Displacements."
,,	8, Frid.	Dr. A. P. Luff. "The Differential Diagnosis and Treatment of Chronic Disease of the Joints."
,,	11, Mon.	Dr. G. E. Herman. "Retroversion of the Gravid Uterus."
,,	12, Tues.	Dr. A. P. Luff. "The Differential Diagnosis and Treatment of Chronic Disease of the Joints."
,,	13, Wed.	Dr. Leonard Williams. "Some Practical Points in Climatology."
,,	14, Thurs.	Dr. G. Drummond Robinson. "Uterine Displacements."
,,	15, Frid.	Sir Felix Semon. "Acute Septic Inflammations of the Throat and Neck."

THE POLYCLINIC

BEING THE

JOURNAL OF THE MEDICAL GRADUATES' COLLEGE, LONDON.

Vol. VII., No. 6.—June, 1903.

TROPICAL DISEASES.

It may be hoped that the term "Tropical Diseases" will have but a short life. It would be to the detriment of the progress of international medicine if any strong lines of demarcation were to be permanently sanctioned between the maladies which prevail in hot climates and those met with in temperate regions. Without doubt the pathological laws which have force in Europe are the same as those which we encounter in Africa and the Far East. Certain modifications undoubtedly follow from climate and still more definite ones from race, but even these are probably far less powerful than is generally supposed. The evidence of relationship, the similarities, the almost sameness, are far closer than most of us think. What we have to study is the influence of climate and of race in modifying the type-forms of disease met with in temperate regions, and, possibly, all over the world. We must not seek to name as novelties and exotics, forms of disease which we may, or might if we would, recognise at home. The Tropics have their lions, their tigers and their elephants, but how few and insignificant are the diseases which bear to general pathology positions in the least degree approaching those which these animals occupy in the zoological world. The chigoe, the guinea-worm and a few others may be mentioned, but the list would soon be complete and would not be an important one. Most of our works on tropical diseases begin with Plague, but really the plague which now threatens to devastate India is the same disease of which Defoe wrote, and which, under the name of the Black Death, so fearfully reduced the population of England in the days of Edward III. Nothing but unsleeping vigilance on the part of our health officials confines the plague to the Tropics in our own day. Almost similar statements are true of the various malarial affections, only a few types of which are in any sense peculiar to hot countries. Leprosy again, claims long chapters in the works of Manson and Scheube, whilst it is almost omitted in English text-books on medicine, but it is a malady which prevails without the slightest change of type in cold countries as well as in the Tropics. It is greatly to be regretted, as much conducing to erroneous conceptions of its nature, that clinical students should be taught to regard it as a foreign malady. Respecting Elephantiasis the case is still stronger. It is true that it is much more frequent in certain regions in the Tropics than it is in Europe, but it is the same malady in England as in Calcutta, and it is still an open question whether it has not as much to do with the coccus of erysipelas as with filarian worms. There are probably not many left who doubt that the attempt to improve upon the classification of Sydenham and Cullen, and to erect the frambœsial type of non-venereal syphilis into a distinct malady under the name of "Tropical frambœsia" was a mistake; and one which has caused the waste of much learned labour and seriously retarded the formation of sound therapeutical laws.

We are, of course, very far from undervaluing the splendid work which has been done in the past by observers in the Tropics, and which is now being carried on with so much zeal by our schools of tropical medicine. Our concern is only to protest against injurious specialisation and against the use of terms and classifications which tend to induce the belief in the half-educated that the influence of the torrid zone is far more potent than it really is in the production of new types of disease.

LEPROSY AND CIVILISATION.

We may note that during the last ten years there has been a decided advance in the general opinion as to the causes of leprosy. The number of those who are out and out contagionists has greatly diminished, and, although that of those who have fully accepted the fish theory is still but very small, the general trend of thought has undoubtedly been in that direction. On all sides we now hear that leprosy is a disease "which disappears before advancing civilisation and attention to general sanitation and hygiene." These expressions are used by men who think it a part of philosophic caution to decline to bind themselves to a narrow creed. Surely, however, it may be asked whether it is worthy of the science of the twentieth century to conceal its ignorance under such generalities. That leprosy does recede under many conditions of advancing civilisation is quite true, but it by no means invariably does so, as, for instance, in the West Indian Islands, in Spain and Portugal, and in Cape Colony. Even if the law were more absolute than it is, surely we ought to be able to specify what element in civilisation it is which exerts this beneficial influence. That it has nothing to do with personal cleanliness, with house accommodation, or with an abundant supply of wholesome food, *per se*, is made certain by a thousand facts.

Although leprosy affects chiefly the poor, it is in no way essentially connected with poverty. The advocates of the fish-theory allege broadly that the one factor of importance is the disuse of badly-preserved fish, and they suggest that, unless exceptional conditions exist, such, for instance, as the fast-day observances of the Roman Catholic Church, the general influence of advancing civilisation is simply by supplying other articles of food to diminish the consumption of the kind of fish referred to. They assert that the better cultivation of cereals and the introduction of root crops, potatoes, &c., combined with the abolition of the fast-days, effected the extinction of leprosy in the British Isles and the greater part of Europe, during the centuries immediately following the Middle Ages. Similar forces are, they believe, at present influencing its prevalence in many parts of the world. It is on record as regards British Guiana that the consumption of salt fish per head of the community, which was 78 lbs. in 1849, was only about 28 lbs. in 1898, and if the records were forthcoming we might very probably be able to chronicle a similar reduction in many other places. The supply of fish is not unlimited, and the mere increase of population in many places changes the position of fish from that of an article of daily use to one which is only employed exceptionally.

We are often asked whether, if it were admitted that tainted fish is one cause of leprosy, it would not still remain a possibility that other forms of bad or decaying food might have the same effect, such, for instance, as rotten meat, or putrid vegetables. Our reply to this is that most undoubtedly there is a possibility, but that there are no facts that make it seem probable. Many savage nations habitually eat the flesh of animals when in a decomposing condition, and yet escape leprosy, and the same may be said of milk, and of all kinds of grain and fruit. The Kaffirs of Natal were notoriously willing to eat meat of cattle which had been found dead and were putrid, and they had no leprosy among them until they came in contact with the salt fish of Cape Colony. Nor do we know of any well-sifted evidence calculated to show that the fish hypothesis does not easily cover the whole of the ground. Leprosy is such a definite and well-specialised disease that we may accept it as highly improbable that its cause should be other than a quite restricted and definite one.

In the further prosecution of the leprosy enquiry there are certain propositions which ought, we cannot but think, to be regarded as now well established. One of them is that under the ordinary conditions of social life leprosy is not communicable by touch of the leper's skin or by breathing the leper's breath. Amongst the facts which establish this beyond any reasonable doubt are the following:—

Experiments by inoculation have been repeatedly made, and, with the single and very doubtful exception of Keanu, they have always failed.

The nurses, attendants, medical advisers, &c., in leper homes never take the disease, however prolonged and close the exposure to risk.

In thousands of instances husband and wife have continued to live together for long series of years, the one a leper, the other in sound health. All observers of experience bear testimony to the fact that it is very exceptional to find both husband and wife affected together.

Lepers have been freely introduced into countries free from the disease, *e.g.*, London, Paris, the United States, and whilst for the most part no precautions have been observed, in no instance has the disease spread to others.[1]

To these may be added the very important consideration that were the disease communicable by these means, such is the length of time during which each leper would be a source of danger that the disease would soon affect the entire population.

NATIVE CHRISTIANS IN INDIAN LEPER ASYLUMS.

In the Tarntaran Asylum, last February, there were fifty-four Hindus, fifty-three Mohammedans, and thirty-four native Christians. The total Hindu population of the Punjab is little short of 13,000,000, the Mohammedan being about 14,000,000. The Christians, however, amount only to 72,000, and the Native Christians, from whom the leper population was solely derived, to only 36,000.

We may first remark that the Hindus and the Mohammedans appear to suffer in like proportions. Amongst the native Christians, however, the excess is almost appalling. Adding together the Hindu and the Mohammedan populations we have a total of 27,000,000, and these supply 107 lepers, whereas the native Christians have the insignificant total of 38,000, and yet supply thirty-four. Thus, on the supposition that the liabilities of the three religions were the same, the native Christians should have supplied three, whereas in reality they have supplied thirty-four.

A fallacy, of course, underlies these statements based on the population of leper asylums, in that it may be, and probably is, the fact that the native Christian more readily enters an asylum which is under Christian management than does one of the other creeds. This may explain part of the difference, but it is easy to show that it does not materially alter the aspect of the facts, because it is perfectly fair to take the records of the asylum as some basis for estimation of the prevalence of leprosy in the whole of the Christian population. Let it not be suggested that there is anything in the habits of a converted native which tends to his degradation. We are able to state that, not only from personal impressions, but from the testimony of many superintendents of leper houses, that their Christian inmates are the most cleanly and the most tractable of those under their care. In Africa it was common enough to hear the easy-going expression, "A Kaffir converted is a Kaffir spoiled," but in India we hear little or nothing of this, the general testimony being that converts became more cleanly and more industrious. The change which they experience; so far as leprosy is concerned, appears to be simply one of diet. In the case of all of them the race prejudice to fish is removed, whilst in the case of the Roman Catholics it is substituted by a sort of compulsion to eat it.

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[1] To each one of these statements exceptions may be found, but they are so few that they in no degree invalidate the general conclusion.

The statements above made are taken from data supplied to us at four different asylums—Madras, Calcutta, Tarntaran, and Bombay.

They all coincide in the most remarkable manner, and it is difficult to arrive at any other conclusion than that the change to Christian food by the poorer classes of India, and most especially to that encouraged by Roman Catholicism, is powerfully productive of leprosy.

The Christian population of the Punjab is 72,000, and in the Tarntaran asylum, which is only one of five in the Punjab, there are thirty-four native Christians. The proportion of native Christians to Christians may be estimated at one-half, so that 36,000 supplied thirty-four lepers, that is nearly ten per 10,000. Again it is to be insisted that Tarntaran is only one asylum of several, and when it is remembered that the ratio of leprosy in the Punjab is 1.8 per 10,000, its enormous excess amongst Christians is evident.

If the other leper asylums of the Punjab contain anything like the same numbers of native Christians, it is probable that the prevalence of leprosy amongst the native Christians is not less than thirty or forty per 10,000, as contrasted with 1.8 in the general community, which, be it remembered, includes them, and is very largely augmented by them.

We will turn now to the facts presented by the Calcutta Asylum.

If we add together Europeans, Eurasians, and native Christians, and venture to assume, as is almost certainly the case, that all these belong to Christian denominations, we have a total of thirty-five, one-third more than the total of Mohammedans, and within a fourth of that of the Hindus; but how different are the relative proportions of these sects in the Calcutta population? In this population the Hindus make 62 per cent., the Mohammedans 32 per cent., and the Christians only 4.4. Of the Christian population 17,000 return themselves as Protestants, and 11,000 as Catholics. The native Christian community, which it will be seen supplied twenty-four lepers, consisted only of 4,101 individuals, one-third of these being Roman Catholics.

Thus it will be seen that the native Christians constitute considerably less than one per cent. of the population, yet they supply a larger number of lepers than do the Mohammedans, who are thirty-two times their number, and half as many as do the Hindus, who are sixty-two times their number. There is no material difference in the proportion supplied by the Mohammedans and Hindus respectively. The calculations which we here present are based upon the population of the town and suburbs of Calcutta, not including surrounding districts. Inasmuch as the leper hospital receives its inmates without regard to where they come from, it would be quite fallacious to attempt to estimate the prevalence of leprosy in Calcutta from them. There is, however, no fallacy in using them as a relative estimate of prevalence in different religious sections. Were the area extended it is probable that the total number of native Christians in the population would rank still lower in proportion to that of Hindus.

PREVALENCE OF LEPROSY IN FISHING DISTRICTS.

The actual prevalence or otherwise of leprosy at fishing centres is determined by several different local conditions. In some cases the fishermen themselves may suffer severely, and in others they may be almost exempt. We have to ask whether the fishing is practicable all the year round or occurs only in seasons. If, as is the case, for instance, in the Sea of Azov, and about the mouths of the Don, the waters are closed by ice for four months of the year, then almost certainly the fishermen will be in the habit of salting or drying fish for their own use during the winter months. The same may be brought about in places where there is no natural winter by the migrations of fish or other causes. We have also to ask whether the communication with inland parts is good or otherwise. If it is good the demand for fresh fish and the price which it commands, will probably leave but little of it to be eaten on the spot, and if any is preserved for home use, it will probably be of the coarsest and worst kinds. Grimsby is probably by far the most important fishing port in England, not only does it receive fishing smacks in great numbers from the North seas, but the shores of the Humber are also productive, yet no one believes that the inhabitants of Grimsby eat more fish than do those of Leeds or Sheffield, and probably they are yet more particular as to its being in a perfectly fresh condition.

It is probable that in former times, when inland communication was not what it is now, leprosy was far more nearly restricted to fishing districts than is now the case. It was certainly so for a century in Cape Colony, and many facts in India seem to imply that the development of the railroad system has transferred the disease away from the coast to inland places. In some fishing towns it is possible that the disease exists in spite of the development of a good market for fish, owing to the hereditary habits of the population. It may be that the taste for salted or dried fish, and that even in a state of partial decomposition, may have become ingrained, being handed down from father to son. It is possible also that some peculiarity in local customs as regards the mode of curing, and perhaps the customary use of a bad kind of salt, may be influential in enabling leprosy to maintain its hold in an isolated community, it would otherwise have got free of it. This remark probably applies to Norway, Iceland, Tracadie in Nova Scotia, and many other places.

HINDOO SENTIMENT AS TO EATING FISH.

THE popular sentiment as regards fish-eating in India may be compared with that as to spirit-drinking in England. Almost everyone does it, and almost everyone would be glad to be able to say that they did not. It is to nine-tenths no disgrace whatever to eat fish, but still without doubt it is against the sentiment of the Hindoo religion to use as food anything which has possessed animal life. This sentiment is, of course, absolutely prohibitory as regards certain more or less sacred animals, and it pertains less to fish than to any other living creature. It has its force rather in the unwillingness to destroy life than in prejudice against flesh as food. Thus a Hindoo may be willing to eat a dead fish who would on no account incur the blame of killing; it is even said that he will catch them and permit them to die without compunction. This sentiment is felt more or less by all castes and grades, but amongst some it is far stronger than in others. Thus a high-caste Brahmin might lose caste if it were known that he ate flesh of any kind. Even in him, however, the prohibition does not begin till he attains the age of nine and assumes the sacred thread. The name Brahmin must not, however, mislead, for there are large sections of this caste who are allowed these articles of food. The comparatively small sect known as Jains are yet more strict than the Brahmins, and with exceptions amongst a certain class it may be assumed that a Jain is a vegetarian. Now, if in any English community—say the inmates of a hospital or poor-house—the quest were made as to spirit-drinking, we know pretty well what the result would be. To the demand, Have you been in the habit of drinking whisky? one man would answer, "When I could get it," another that he "had had his share," a third that he had been "very moderate," a fourth "very rarely," and a fifth, with an indignant shrug, "Never." There would, of course, be a very marked difference in the number of individuals who would make respectively these replies, and the difference would be very great in the two sexes, since popular feeling stigmatises sensual indulgence as more discreditable in women than in men. Now it is much the same with enquiries as to fish-eating in India. To ask an ordinary Hindoo if he has been a fish-eater is much like asking an English labouring man if he has been accustomed to take whisky, he will admit it without shame, but at the same time would have a certain degree of pleasure in denying it; to put the same question to a Brahmin would be like interrogating a clergyman, but in the case of a Jain Vani it would be equivalent to making the demand of a member of the Society of Friends. Hooker records in his Journal that, having sent his servant into a Jain village to buy some eggs or a chicken, the man was mobbed and beaten for offering them an insult. Respecting the Jains it is, however, necessary to recognise that there is a lower class who are less strict.

Such are some of the initial difficulties which attend personal enquiries as to fish-eating in India, but they are only the beginning. The Hindoos are a timorous people and they soon take alarm at questions the drift of which they do not understand, and in fear that some advantage will be taken of them, will give the answer which they think most likely to protect their own interests. Next come the obstacles imposed by differences in language and dialect. The number of different languages represented in an Indian leper asylum is often great. In many instances you have to get one patient to interpret for another, and in some from first to last the questions may very possibly be misunderstood. The terms used also are liable to misapprehension. If you ask as to "fish" they think only of fish just taken out of the water and do not take into account the dried and salted article which has probably lost all resemblance to what they knew as fish. If you ask as to salt fish you are supposed to mean fish out of the sea as distinct from that out of fresh water. The sources of fallacy are, indeed, endless, and general conclusions are all that can be reached.

MEASLES.

Dr. Wynter Blyth, Medical Officer of Health for St. Marylebone, in drawing attention to the recent order which applies certain sections of the Public Health Act (London) to measles has the following judicious remarks :—" The wisdom of making the order is open to criticism, on the ground of its small utility—a half-hearted measure, expensive in its incidence, partial in its application and inefficacious to reduce the mortality or to control the spread of the disease."

Most medical men will, we cannot but think, heartily agree with Dr. Blyth. The measures proposed will do little or nothing to diminish the prevalence of the disease, whilst they will cause inconvenience and annoyance both to doctors and parents. After all it may be doubted whether it is desirable to attempt to prevent the spread of measles in childhood and whether the opinion of our ancestors that "it is best to get it over," was not a well-founded one.

Dr. Blyth tells us that the deaths from measles in the whole of London vary in different years from about 5 per 10,000 of all ages up to a little more than 8 per 10,000. Since, however, measles is essentially a disease of children it is better studied in relation to the child population.

The deaths in 1901 in all London were equal to 37 per 10,000 children (under 5 years of age).

NOTES OF CASES DEMONSTRATED IN THE CONSULTATION THEATRES.

MEDICAL CASES.

BY SEYMOUR TAYLOR, M.D., F.R.C.P.

Tuesday, April 28, 1903.

A Case of Jaundice.

The patient, a man aged 62, a zinc worker, complained of jaundice, which has lasted continuously for twelve months.

The family history affords one important fact, viz., that his father died at 64, after suffering from jaundice, which was attributed to beer drinking. The patient has drunk beer to excess, but denies having taken "spirits," except occasionally.

He suffered about thirteen months ago from an attack of severe pain which began in the right hypochondrium, and "shot across" to the opposite side and between the shoulders. The pain lasted some hours, and was so severe that he was completely doubled up. Jaundice supervened some two or three weeks afterwards. He has lost flesh considerably during the past year.

On examination the skin is dry and harsh, and stained an almost bronze colour; he complains of itching; the conjunctivæ are yellow; the pulse rate is only 60. The urine is bile-stained, and the bowels constipated, the fæces being clayey and offensive. The liver can be easily felt and mapped out. It extends to within half an inch of the horizontal line of the umbilicus, thus occupying the whole of the epigastrium and a greater part of the umbilical region. The free edge in this region is hard and sharp. The right lobe is extended down into the lumbar region as a tongue-like process or lump, which is hard and nodular, strongly suggestive of its being some form of new growth; the other parts of the liver are smooth, and afford no other signs of irregularity when palpated. The spleen is not enlarged. There is no ascites; the abdominal percussion note is hyper-resonant in every region, apparently from flatulent distension of the intestines. The patient does not suffer from hæmorrhoids. His tongue is coated, and he has complained of morning retching and occasional vomiting, though not for the last six weeks. The character of the vomited matter has never been observed.

Now cases of jaundice are classified by Murchison into (*a*) obstructive cases, in which the bile is hindered in its passage to the intestine, and (*b*) non-obstructive, in which there is no such hindrance. Obviously we have here a case which comes under the first category; the "putty-like," offensive evacuations being conclusive proof. Then comes the enquiry, what are the causes of obstructive jaundice? They are all mechanical, the chief ones being, in a man aged 62, malignant new growth, gall stones, catarrh of the stomach and duodenum, and the later stage of cirrhosis. We may dismiss catarrhal affection of the intestinal mucous membrane, as, although he has had morning sickness, this has passed off some six weeks ago.

He may have a malignant new growth in the liver; his age is in favour of it, and so to a certain degree is the fact that his father died of a disease similar to that which now affects our patient. Further, there is the suspicious lump on the right lobe of the liver, which is tender. Lastly, the jaundice has been persistent from the beginning. I lay some stress on this last sign, as in my experience jaundice which is caused by malignant neoplasm in the liver never remits.

The subject of emaciation must be considered here. It is no guide to a diagnosis of malignant disease unless it shall have commenced some time prior to the onset of jaundice. For we must remember the clinical fact that every patient loses flesh after jaundice has set in, no matter what the cause be.

The question of the existence of gall stones cannot be dismissed without some consideration. We must bear in mind the history of that attack of colic, and clinical experience also teaches that the co-existence of biliary calculi and cirrhosis, as well as malignant new growth in the liver, is not uncommon.

The latter stages of cirrhosis of the liver are frequently attended by jaundice, the icteric tinge often assuming a tawny or bronze colour. One would suppose, if cirrhosis be present, that besides the gastro-intestinal disturbances which are so characteristic, and from which he has suffered, he would show signs of enlargement of the spleen and ascites, and probably of hæmorrhoids. None of these phenomena is present, however, but I would point out to you that marked cirrhosis may exist without abdominal dropsy.

The case, therefore, is a complicated one, and the diagnosis consequently very difficult. I am inclined to the opinion that he has cirrhosis of an irregular type, that is to say, a cirrhosis in which the liver is not equally affected, the right lobe being chiefly involved.

In addition there is a probability of a biliary calculus, possibly of large size, which is partially obstructing the common bile duct.

A Case of Mediastinal Tumour.

The patient is a male aged 48. He complains of pain starting in the upper region of the right side of his chest, and "striking down the right arm," together with cough and dyspnœa. There is no history of syphilis.

On examination the veins at the root of the neck on the right side and also the external jugular vein and its tributaries are greatly distended, more especially so during coughing. There is also some fulness of superficial veins over the right side of the chest. In the right supraclavicular fossa, over its inner third, is a "lump" or tumour, which is of somewhat firm consistence, its hardness being specially felt also when he coughs. But to the inner side of this again, in the furrow between trachea and gullet, we can feel a smaller and more firm tumour about the size of a horse bean, which I take to be an enlarged cervical lymph gland.

His cough is notably raucous and brassy, but the vocal cords act equally, and beyond some congestion of the larynx generally, there are no other notable signs to be observed by the laryngoscope. (Captain Hayward Pinch kindly made this observation.)

The case has been sent up by a most able clinician, Dr. Knowsley Sibley, as one of thoracic aneurysm, or of thoracic new growth, or other form of tumour.

The patient presents none of the cardinal signs of aortic aneurysm, viz., a superficial bulge, with pulsation, thrill, and diastolic shock. And in default of one or more of these physical signs we are not justified in making a diagnosis of aneurysm, since the other signs from which he suffers, viz., those of pressure upon veins and nerves, are equally common to aneurysm and other forms of thoracic tumour. He may, of course, have an aneurysmal swelling in the thoracic aorta beyond the arch, but I submit that we are not in a position to come to that conclusion in default of other signs than those which he presents. But he has a condition pointing to a mediastinal disease. The supraclavicular tumour, which probably springs from the thorax, has been regarded by one or two observers as an emphysematous condition of the summit of the right lung. But the existence of lymphatic glandular infiltration, the paroxysmal cough, the pain down the arm, all suggest that his symptoms are due to pressure exerted by some growth of firm texture and of rapid extension. I am inclined to this view, although I can express no opinion as to the nature of the growth. I propose to submit the patient to further examination by the Röntgen rays, in the hope thereby to make a more exact diagnosis.

BY C. THEODORE WILLIAMS, M.D., F.R.C.P.

Tuesday, May 12, 1903.

Cases of Cardiac Disease.

THE first of these was a young woman in whom there were well-marked physical signs of mitral stenosis. The history included an attack of rheumatic fever, and the patient complained of much præcordial discomfort and breathlessness.

In the second case, the cardiac lesion was of a much more serious order, but it was remarkable that in spite of this, the patient, a man of 40 years, had suffered only a moderate amount of inconvenience. Indeed, until within the last two months he had been engaged in active service as a member of the London Fire Brigade. The physical facts showed a lesion of the aortic valve producing both a systolic and diastolic murmur and accompanied by very considerable hypertrophy of the left ventricle. The entire absence of the cardiac second sound, and the well-marked collapsing character of the arterial pulse, were commented on as indications of the extreme degree of regurgitation taking place at the aortic valve, and as facts compelling a very anxious prognosis. A further aspect of the case was provided by an examination of the arterial system, which showed extreme and widespread evidences of degeneration. The brachial, radial, and temporal arteries, for example, felt, when rolled beneath the finger, like rigid tubes. Throughout their whole length these arteries presented prominent visible pulsation, and they were seen to be twisted into curves in various parts of their course. Another clinical phenomenon well demonstrated in this case was the existence of capillary pulsation; this, as is well known, is not infrequent in cases of aortic regurgitation.

Cases of Pulmonary Disease.

In one of these there was no difficulty in making a diagnosis. The patient was a robust-looking, well-nourished man of some 35 years, who for two years has complained of cough attended with very abundant expectoration; the sputa at times, it was said, measured as much as four pints in the twenty-four hours. Tubercle bacilli had not been found. Physical examination detected well-marked cavernous sounds over the base of the right lung behind; attention was also drawn to the presence of conspicuous clubbing of the finger-tips. Such a combination of facts, Dr. Williams pointed out, compelled a diagnosis of bronchiectasis. The extremely abundant sputa, with the association of a fairly satisfactory state of the general nutrition, are in themselves strongly suggestive of such a diagnosis, and the physical facts of the case are in entire harmony with this view.

In a second case, the differential diagnosis as between bronchiectasis on the one hand and phthisis pulmonalis on the other was a much less certain issue. The patient, a man about 22, was thin, and of spare development, with very decided flattening over the upper part of his right chest, and widespread impairment of percussion on this side. A further evidence of retraction of the right lung was found in the displacement of the mediastinum to the right, so that the normal percussion and respiratory sounds of the left lung could be heard well to the right of the mid-sternal line. The evidences of impairment of the general nutrition and of fibrotic shrinking of the right lung undoubtedly suggest a tubercular process, for pulmonary fibrosis is usually associated with the presence of tubercles, and the general nutrition, as seen in the first patient, is not, in ordinary circumstances at least, seriously compromised by the local pulmonary changes of bronchiectasis. On the other hand, repeated examinations have failed to find any tubercle bacilli in the sputa, and over the back of the right chest the physical examination suggests the presence of numerous small cavities, exactly as is usually in bronchiectasis, rather than one or two large or fair-sized cavities as is commonly seen in pulmonary phthisis. The negative observations in reference to bacilli, more especially in view of the considerable development of fibrotic change in the lung, is not conclusive, but taken together with the other facts, it may reasonably be urged in defence of a diagnosis of bronchiectasis. A third suggestion is possible, namely, that the patient is the subject of both diseases, the bronchiectatic change being specially marked over the posterior part of the lung, and the existence of fibroid phthisis, producing retraction of the lung, being specially evident in the upper and anterior part.

BY WM. EWART, M.D., F.R.C.P.

Tuesday, May 5, 1903.

A Case of Rheumatoid Arthritis.

In this case there were illustrated many of the clinical features of the disease commonly called rheumatoid arthritis; also the frequent difficulty of tracing the cause of the condition in individual patients. The patient, a man aged 54 years, complained of pain and swelling of his joints, of many months' duration. The hands, on examination, showed a number of facts which are usually regarded as marking the rheumatoid condition. Thus, the heads of the metacarpal bones were much enlarged; the interphalangeal joints were swollen, and had a fusiform appearance; and the hands in these two respects showed a condition of conspicuous symmetry. In addition to osseous changes it was also noted that there was well-marked atrophy of the small muscles of the hands, and that the palmar aspects of the hands and fingers were moist with perspiration. The symmetrical distribution of the deformities and other changes which occur in rheumatoid arthritis necessarily suggests, as a cause of the disease, either some change in the central nervous system, or the existence of a poison in the blood. Both of these views have been held by competent authorities. In respect to the toxæmic theory, it may be conjectured either that the poison affects peripheral structures with corresponding anatomical position and physiological relationships on the two sides of the body, or that the parts which yield to the prejudicial influence of the poison are those nerve-centres which are specially concerned with the trophic control of the joints. There are without question facts which appear to support the view that a chronic blood-poisoning may produce among its clinical consequences deformities and disorganisation of joints. Gonorrhœal arthritis may be quoted as one illustration of this proposition. Another is found in the disappearance of the joint disease in some instances upon the removal of a focus of purulent or other form of septic matter from some part of the body. Thus, clubbing of the finger tips, or the more extensive changes which constitute the condition known as hypertrophic pulmonary osteo-arthropathy, may disappear after the drainage of a chronic empyema. Such facts emphasise the necessity when dealing with a case of chronic arthritis, for a critical survey of the whole body, lest perchance some source of chronic toxæmia should be overlooked. One such source may be the oral cavity, where small quantities of pus may be produced in connection with the stumps of carious teeth or from the existence of pyorrhœa alveolaris. A limited degree of suppuration spread over a chronic and persistent period may readily produce such changes in the blood as to impair its value as an agent for securing tissue nutrition. It must, however, be admitted that there are cases of chronic rheumatoid arthritis in which the most careful examination fails to detect any condition competent to give rise to blood-poisoning, and the present patient appears to belong to this group. There is nowhere any focus of suppuration, and the functions of the alimentary canal are said to be perfectly normal, so that neither as the result of abnormal fermentations, nor as a consequence of constipation, can it be surmised that poisonous alkaloids or allied substances contaminate the blood stream.

On the other hand, the patient has a worn and anxious look, and has evidently passed through some experience which has had a most unfavourable influence on his nutrition. His case may therefore be taken in support of the view that a condition of rheumatoid arthritis may arise apart from toxæmia, and as a result of depreciation of nerve-force. In some cases, the association of the joint changes with great mental anxiety and strain has been a very close one, and this fact obviously goes to support the theory of trophic causation. Another indication in the same direction is that great benefit has followed the application of sustained counter-irritation—as by blisters followed by the use of savine ointment—over the region of the spine corresponding to the nerve-supply of the affected joints. And the development of chronic joint changes in chronic disease of the spinal cord, more particularly in tabes dorsalis, is a further argument in support of the thesis that certain cases of chronic rheumatoid arthritis are dependent upon central nervous disturbance. The muscular atrophies which are a feature of the disease cannot be legitimately quoted in support of this thesis. For it is a common experience that the muscles in the neighbourhood of an inflamed or injured joint often undergo early, and sometimes conspicuous atrophy. There is in such an instance no question of central nervous change as the cause of the joint condition. This may be, for example, the result of traumatism. Yet muscular wasting is one of the consequences. The probable explanation is, that from the injured joint nerve-impulses are conveyed along afferent paths to the spinal cord, and that in this secondary fashion the trophic centres are disturbed, with the result of muscular wasting. Hence such wasting, when existing in association with joint disease, is no proof that the joint condition is trophic in origin. Just as in the case of an injury the joint condition is a primary fact, and the muscular atrophy is a secondary reflex trophic disturbance, so it may be that in chronic rheumatoid arthritis the joint changes are responsible through a similar mechanism for the attendant atrophy. The atrophy may have as its proximate cause central nervous change, but its existence is no proof that the joint conditions are the outcome of such change. The order of events may quite as readily be joint disease, spinal disturbance, muscular atrophy, as spinal disease primarily, joint disease and muscular atrophy secondary and consequential.

The practical outcome of these theoretical discussions is shortly this. In chronic joint disease of the rheumatoid type consider first the possibility of chronic toxæmia. Search for a point from which blood-poisoning may take origin. This may sometimes be found in the oral or nasal cavities, at other times it may be traced to indigestion or constipation. When such a possible cause of the disease is discovered, steps, of course, must be taken to remove it. If the search for a toxæmic focus proves entirely negative, the possibility of a nervous explanation of the disease comes prominently into view; and there is no doubt that, whichever be the explanation in any particular case, early treatment is capable not only of staying the progress of the disease, but of producing considerable amelioration of the symptoms, f not actual cure. When the condition has advanced to the stage in which the articular cartilages are destroyed (shown by coarse grating on movement), and the joints are deformed by chronic inflammatory changes and the formation of osteophytes, it is hopeless to expect a restoration either of structure or function. So unsatisfactory a position may be urged as an additional argument in support of prompt and reasonable treatment at the outset of the disease. Presuming any possible cause of blood-poisoning has been removed, the next claim is to improve the patient's general vitality. Upon this, indeed, successful treatment rests. The notion that the disease has some relationship to gout, often leads to the prescription of a severely restricted diet, and to the administration of alkalies. The depressing effects so produced favour, rather than hinder, the advance of the disease. The aim of the physician must be to build up the patient's strength and to improve his nerve tone. Hence a generous diet, possibly a limited amount of alcohol, and such tonic agents as cod liver oil, arsenic, and strychnine are essential factors in the scheme of treatment. Baths of various kinds are of value as local measures, but the general tonic treatment is indispensable.

A Case of Mediastinal Growth.

This patient, a middle-aged man, showed an extremely interesting condition in the shape of very considerable distension of the superficial veins of the lower right chest and right abdomen. The enlarged and tortuous vessels stood out like knotted cords below the skin. In addition, the man's face had a bluish, congested appearance, and there was some degree of enlargement of the veins in the neck. These facts made it obvious that there existed some intrathoracic obstruction to the venous return. Such obstruction is, of course, usually either an aneurism or a solid mediastinal tumour. In the absence of appreciable, expansile pulsation, the diagnosis between these two conditions is usually difficult, and not infrequently impossible. But it is a matter of experience that very conspicuous evidences of venous dilatation are more frequently found in cases of mediastinal tumour than in cases of aneurism. Hence in the present patient, the state of the superficial abdominal veins, and the dusky, bluish shade of the face and neck, justified the presumption that he is the victim of some form of mediastinal growth. This presumption becomes a practical certainty when the patient's history is presented. So long as ten years ago this patient was seen by Dr. Ewart, and his condition was then much as it is to-day. Now, whilst an aneurism may remain for a long period of time without advancing to a fatal termination, it is almost impossible to believe that the prolongation could extend to so long a period as ten years, at least in a man, like the present patient, engaged in laborious work. A still further observation favouring the suggestion of some form of solid mediastinal growth, rather than of aneurism, was the presence of enlarged glands in the neck, this fact obviously justifying a presumption that the intrathoracic lymphatic glands might be similarly affected. Hence, to present the position in a word, the facts of venous obstruction show the presence of an intrathoracic tumour; the very marked degree of these facts renders a solid tumour rather than an aneurism the correct diagnosis; and this view of the case is supported by the presence of enlarged glands in the neck, and by the long duration of the venous dilatation and other symptoms. Concerning the exact nature of the intrathoracic tumour, it can be said with confidence that it is not malignant. Whether it has the character of a glandular enlargement or is a fibrous overgrowth must be a matter of speculation. In any event, it is noteworthy that an intrathoracic condition capable of producing well-marked and even conspicuous evidences of venous obstruction can exist without any substantial advance even over such a long period of time as ten years. Whether the condition is to be attributed to syphilis or not is uncertain. There are no conclusive evidences of that disease, and the fact that the patient improves under potassium iodide does not completely remove the uncertainty.

Aortic Valve Disease.

The patient was a man of middle age, presenting the usual auscultatory and other evidences of aortic regurgitation. It was particularly noted that no second sound could be heard over the aortic area, and this was urged as the basis for a specially anxious prognosis. Such an observation means a degree of damage to the aortic cusps sufficient to destroy completely the efficiency of the valve. The absence of the second sound means necessarily that at no time during the cardiac diastole do the edges of the cusps come into contact with one another. Hence free regurgitation must inevitably occur, and there must exist all the risks which attach to this condition. On the other hand, a well-defined second sound, even though accompanied by an aortic diastolic murmur, shows that, though the valve is not perfect, it still possesses a fair measure of efficiency, and thus the prognosis is lightened in corresponding measure. With such a condition the murmur may be a very obtrusive fact, as the louder murmurs usually occur when the blood stream has to pass through a narrow orifice. Opposed to this is the experience that with free regurgitation the murmur may be relatively indistinct, the opening through which the blood stream passes being comparatively large. Dr. Ewart also discussed the possibility of aortic regurgitation arising suddenly under strain and as a consequence of rupture or partial detachment of one of the aortic curtains. He expressed the opinion that such an event only takes place when there already exist atheromatous or other degenerative changes in the aorta. The murmur which follows such an accident is often a very loud one and may possess a musical character, so that the patient himself or even his friends hear it, and take note of it as a new fact. This may enable the condition to be recognised as the immediate result of some strain or injury.

BY C. O. HAWTHORNE, M.D., M.R.C.P.

Tuesday, May 19, 1903.

Abnormal Clinical Conditions of the Pupils.

Dr. Hawthorne demonstrated a number of cases illustrating abnormal clinical conditions of the pupils. He urged the routine observation of the pupil as part of the ordinary plan of clinical investigation. Such a habit in the first place makes the physician familiar with the extent and limits of the normal variations possible in the condition of the pupils, and in the second place, it leads to the detection of changes which, even when slight in degree and existing as isolated events, may be of great significance in reference to diagnosis. Regarding the size of the pupils there is nothing very definite to be said so long as the two are of equal measurement and each possesses a good light response. Inequality of the pupils, however, is a suspicious condition if it can be confidently certified to be a new fact. This is not always easy, as there are persons who have unequal pupils for years, probably from birth, and in whom the condition is of no significance. Often, but not invariably, in such patients the irides differ in colour, and one of the cases described below (Case 4) illustrates this statement. If with the inequality there is loss of light response in the large pupil, this must be accepted as an undoubtedly abnormal fact. The explanation in some instances is that the patient has purposely or accidentally applied some preparation containing atropine, but if this possibility can be excluded, the existence of a dilated and immobile pupil is suggestive of commencing organic disease. Dr. Hawthorne quoted a case in which this condition was the first objective event in a patient who subsequently developed evidences of multiple sclerosis. In testing the light response it is essential to test each eye separately, and also to be careful that during the observation the patient's gaze is fixed upon some distant object. Unless the latter procedure is adopted, the contraction of the pupil which accompanies the act of convergence or accommodation may be mistaken for a reflex response to light. The Argyll-Robertson pupil, with its absence of light response and its contraction during convergence, is usually associated with myosis, and attention was drawn to the significance of this in relation to a lesion involving Meynert's fibres, that is, the nerve tract connecting the centre in the corpora quadrigemina with the third nerve nucleus. Such a pupil may be found without any impairment of vision, or may accompany advanced optic atrophy. The latter condition, so far as the state of the optic nerve is concerned, would *à priori* suggest a dilated pupil, as the afferent path by which the stimulus of light reaches the pupil-contracting part of the third nerve nucleus is damaged or destroyed. Hence a combination of myosis and optic atrophy must mean a central lesion, in addition to the peripheral sclerosis of the optic nerve.

The cases submitted for examination were as follows:—

(1) A girl of 15 years showing a congenital coloboma of each iris. The coloboma on each side also involved the choroid and optic disc, and the right lens had recently become opaque.

(2) A girl of 10 years in whom the left eye was abnormally small (microphthalmus). This condition was due presumably to some inflammatory or other change during intrauterine life, as the lens showed a transverse bar of opacity and the pupil was fixed and eccentric.

(3) A man who complained of pain in the lower part of his left leg, found on examination to be associated with considerable thickening of the lower third of the tibia and fibula. No specific history could be obtained, but it was observed that the left pupil showed some deficiency in its light response, and on dilating the pupil distinctive evidences of a former iritis were seen. It was pointed out that apart from the custom of habitually noting the condition of the pupil this conclusive proof of a former iritis might readily have been overlooked.

(4) A boy of 10 years with unequal pupils. The right iris was of a brownish-gray colour and the right pupil was the larger one of the two.

The left iris was of a light gray tint. The case thus followed the usual rule of showing the smaller pupil in the less pigmented iris.

(5) A young woman, the subject of congenital ptosis. As is usual in such cases the ptosis was accompanied by defect in the upward rotation of the eyeball. A surgical opinion had been taken on the case, but the patient had declined to submit to operation.

(6) A young woman whose left pupil when directly tested showed only a slight and ill-sustained contraction. When light was allowed to enter the right eye the left pupil contracted freely (consensual contraction). On the other hand, the right pupil showed a free direct response to light, but little or no consensual contraction. The explanation was found in a state of optic atrophy on the left side. The case was submitted as a good illustration of the importance of testing the pupils separately.

(7) A man of middle-age with a normal standard of vision and in whom the pupils were contracted, with absence of the light response, and only very slight movement on convergence. Five years ago he came under observation with paralysis of the right external rectus muscle, and the condition of his pupils was then observed to be as just described. There was a quite undoubted history of syphilis. Attention was directed to the condition of the pupils as being the first clinical fact in what was without question a case of central nervous disease. This fact was certainly in existence at the time of onset of the ocular paralysis, and it was highly probable that it had been in existence for some time before that event. So far, no evidences of disease of the spinal cord have appeared, and the knee-jerks are well developed. Yet it can hardly be doubted that the case belongs to the tabes dorsalis group, and hence it is reasonable to argue that the Argyll-Robertson pupil may be the first, and possibly for some considerable time, the only objective evidence of that disease. It is certain that optic atrophy may occupy this position, and the same is true of an ocular paralysis. Such cases as the present suggest that, equally, the Argyll-Robertson pupil, even when existing alone, must be regarded as having a possible significance of the same order.

(8) This was another case with contracted pupils showing highly characteristic Argyll-Robertson phenomena. But unlike the case just described the patient was beginning to suffer from failure of sight, as a result of optic atrophy. And there was evidence of spinal disease in the shape of difficulty in obtaining the knee-jerks.

(9) In this patient the conditions just described had reached a further stage, for he was quite blind (optic atrophy) and the knee-jerks were entirely absent. The pupils were very small and had no light response, but showed decided movement in the act of convergence.

These three patients thus exhibited different degrees and combinations of symptoms indicating central nervous disease. In No. 7 there are Argyll-Robertson pupils and an ocular paralysis, but no lesion of the optic nerve and no evidence of spinal disease. In No. 8 the same condition of the pupils is associated with commencing optic atrophy and defect in the knee-jerks. And in No. 9, the Argyll-Robertson phenomena are combined with advanced optic atrophy and with complete loss of the knee-jerks. A further contribution to the series was seen in

(10) A man of middle-age with a similar state of the pupils, commencing optic atrophy, loss of the knee-jerks, and Charcot's disease affecting the right knee-joint.

(11) This was a man with dilated and immobile pupils, loss of accommodation, and paralysis of the external ocular muscles supplied by the third and sixth nerves. The feature of special interest was the opportunity thus given to observe the action of the superior oblique muscle as supplied by the fourth cranial nerve.

DISEASES OF THE SKIN.

BY J. M. H. MACLEOD, M.D., M.R.C.P.

Monday, April 27, 1903.

Lupus Erythematosus.

The patient was a middle-aged woman who had suffered from the disease for a number of years. The classical bat's wing area was involved. The disease had been treated on several occasions by cauterisation with carbolic acid and acid nitrate of mercury. The result had been the partial destruction of the disease with considerable scar formation, and, as a consequence of the latter, an ectropion of the right lower eyelid. The case was exhibited to show the effects of the Finsen light. In this instance, exposures of half an hour to a modified Lortet-Genoud lamp had resulted in distinct amelioration of the condition without the production of an excessive reaction. The ectropion had been dealt with at Charing Cross Hospital by means of a plastic operation by Mr. Treacher Collins, and an excellent cosmetic result had been obtained.

Urticaria Perstans.

The patient who suffered from this unusual affection was a rather emaciated man, aged about 40. Quite recently he had been an in-patient in Guy's Hospital on account of chronic gastric trouble. On leaving the hospital he went under the care of his private doctor, who sent him to Charing Cross Hospital to seek advice regarding the eruption. This, as now seen, is localised to the left side of the abdomen and left lumbar region; it also extends down on the left hip and to a less extent on the right hip. At first sight it slightly suggests in its distribution an extensive attack of Herpes zoster, but a more careful examination shows the lesions to be flat papules, each about the diameter of a split pea, or larger. They are reddish in tinge, somewhat indurated, and discrete, without any tendency to regular grouping or to become confluent. They are associated with severe itching, and a number of them have been scratched. The lesions on the hips are recent, only having been in existence for about twenty-four hours, while the rest of the eruption appeared five days earlier. The recent lesions are urticarial in nature, being pink wheals of various sizes. Instead of disappearing like ordinary urticarial wheals in from a few minutes to a few hours, they persist for days and sometimes weeks; hence the title. The case is interesting on account of the association of the persistent urticaria with chronic gastric disease and the circulation of toxins in the blood.

Lichen Planus (?)

This singularly interesting case, of which the diagnosis was by no means clear, occurred in a man aged about 40, a commercial traveller. He was a healthy-looking man, and had suffered for nine months from an unusual eruption which was localised on the flexor aspect of the arms and wrists, about the elbows, and to a less extent on the thighs and calves; there were also a few lesions about the groins and lower part of the abdomen. The eruption was somewhat symmetrical in its distribution. The individual lesions were small, angular, flat-topped papules, scarcely so large as a pin's head. They varied little from one another in size. They were yellowish-brown in tinge, and presented a shiny surface. They had a tendency to be arranged in groups, but showed no signs of becoming confluent. The eruption was unaccompanied by any subjective symptoms. The majority of the lesions were independent of the pilo-sebaceous follicles, though at first sight the eruption suggested an attack of Lichen planus. The chronicity of the individual papules, and the fact of their remaining discrete, was rather against that diagnosis, nor were there any of the corroborative lesions in the mouth, which so commonly accompany an eruption of Lichen planus. The other possibilities were the generalised tubercular eruption known as Lichen scrofulosorum, and a fine corymbose syphilide. Neither of these, however, fitted with the case, as there was no evidence of either tuberculosis or syphilis, and the eruption had not the follicular distribution and general characters of Lichen scrofulosorum. With a view of settling the diagnosis several of the lesions had been excised, and Dr. Macleod hopes to report the result of the microscopical examination on a future occasion.

Palmar Eczema.

A typical case of Eczema palmaris and plantaris in a young girl was brought forward in order to compare it with a case of dysidrosis, and to discuss the differential diagnosis and treatment of the more common skin-affections of the hands. With regard to palmar eczema it was pointed out that the diagnosis does not, as a rule, present any serious difficulty, since in the majority of cases chronic itching eruptions limited to this region are eczematous. The diagnosis was discussed between this condition and Dermatitis venenata resulting from certain trades, or from handling poisonous trees or plants, and also between it and palmar syphilides and dysidrosis. The treatment of palmar eczema was described, and the importance of reducing the thickened epidermis by salicylic acid, pyrogallic acid, and the like, was referred to.

Dysidrosis.

The case illustrating this affection was not a typical one, and it occurred in a young girl of about 13 years. When she was first seen at the Victoria Hospital for Children, the sides of the hands were covered with vesicles and small bullæ; these had coalesced in the palms, and the greater portion the epidermis of the palms was macerated off. At the time of exhibition she had been under treatment with boric lotion and weak boric ointment kept almost constantly applied, consequently the condition had greatly improved, and a great deal of the inflammation had subsided, so that it was impossible then to have diagnosed the affection.

Two Cases of Lupus Verrucosus.

The patients were a boy and girl, aged respectively 10 and 12 years. In both cases there were several tubercular patches—on the legs, buttocks, and arms in the girl, and on the buttocks in the boy. The lesions consisted of circumscribed raised patches, deeply indurated, and covered with a warty, crusted epidermis. The treatment of this affection was discussed, and it was pointed out that on the skin of the trunk and limbs the lesions are, as a rule, definitely circumscribed, and that the best treatment is undoubtedly excision and subsequent grafting, after the manner practised by Lang of Vienna. After that, probably the most satisfactory method is the actual cautery, but this should be applied at several sittings, and the case kept under the closest supervision. One of the cases had been under treatment by the exhibitor, and the actual cautery had been used. The immediate result was satisfactory, and the scar was a fairly good one, but it is beginning to give way, and further treatment will be required.

CASES, WITH COMMENTS, FROM THE THURSDAY CLINICS.

BY MR. HUTCHINSON.

Sequel of a Case of Spondylitis Deformans.

This patient attended four years ago at Park Crescent, and was the subject of demonstration. It is of much interest to note that he has not got any worse in the interval. We of course forbade beer and gave quinine, iodides, &c., but whether what was done had much influence in arresting the disease, it is difficult to say. He tells us that he now takes beer again and that he does not think that it hurts him. On the former occasion I thought that his scapulæ were becoming fixed and his shoulders stiffened, but the evidence on these points seems less than it was. His right shoulder-joint moves well, the left less so. His neck is as it was, absolutely stiff, and he carries his chin nearly on his sternum. He has no lateral movement in his neck. His general health is good, much better than it was. He is still quite free from evidences of rheumatism in other joints, if we except, perhaps, some stiffness of the right hip.

We were never able to get any history of family tendency to arthritis. He attributed his spinal affection to having slept in a damp bed, and he denied any history of gonorrhœa.

We may notice that his chest and back are covered with circular patches of desquamating lichen marginatum, due, no doubt, to his having worn thick flannel constantly to protect his spine.

Description of the Dermatitis of Leprosy as Displayed in Different Regions.

April 16, 1903.

I am desirous to demonstrate in this patient that leprosy is attended by a diffuse universal dermatitis which assumes different characters in different parts. The conditions are absolutely symmetrical. The boy's face is in a typical state of what is known as tubercular leprosy, the features being tumid, the eyebrows lost, and there being thick bosses of solid œdema, well localised and limited, on his forehead and cheeks. You can take many of them up between finger and thumb. His ears are simply tumid and their lobules thick, there being nothing of the nature of a tubercle. The skin of the trunk is not in the least degree thickened, and is for the most part white, but with well-marked scorch-patches of yellow-brown over the scapulæ, and less distinctly in the chest. His hands are dusky, and in slight degree tumid, but might easily escape notice. The palms are dry and desquamating. At his wrists there commences a state of very exaggerated goose-skin. Closely set papules involving the orifices of the hair follicles cover the whole surface. Some of these show little black plugs of sebum, and from a few small sebaceous spines have been extruded (lichen spinulosum). Passing up the forearm the lichen papules become larger in size, until above the elbow many of them lose the lichenoid character and assume that of flattened papules, almost tubercles, without obvious structure. You no longer identify them as having any connection with the hair follicles, and some of them are big enough to take rank as the tuberous form of leprosy. A little below the shoulder all traces of lichen papules or leprous tubercles cease, and the skin is quite soft, but stained yellow brown, and slightly œdematous. Thus it will be seen that the forearms present a close simulation of lichen scrofulosorum which gradually advances to the condition of leprous tubercles.

Mutatis mutandis, I believe that his lower extremities present parallel conditions.

There is no demonstrable loss of sensation anywhere. His ulnar nerves are hard and slightly thickened, but the muscles supplied by them are not obviously impaired. (Demonstrated again on June 4th.)

A Case of Multiple Pigmented Moles, Simulating a Syphilitic Eruption.

Our patient has, as you see, his arms from the wrist upwards spotted with brownish spots about the size of split peas. There are some also on his shoulders and chest. Their symmetry does not approach exactness, although they occur on both sides. I will say at once that I have no doubt that they are moles, and that their only feature of peculiarity is that there are so many of them. My patient came to me in great anxiety believing them to be syphilitic. Now I have several good reasons for putting that suggestion aside. They have been there for several years, and they only increase very slowly, and show no other changes. They are all easily distinguished by the finger, being attended by definite growth or thickening. Some of them certainly grow hairs. One or two of the larger ones on his abdomen are not brown, but of a bluish almost coal-black. My patient consulted me some five years ago, and I find by my notes that I then gave him the same opinion and tried to console him as to the idea of syphilis. Since then they have increased but little either in number or size. He is confident that they were not present when he was a boy. I tell him that although I admit that he did not see them I have no doubt that they were potentially there.

Lupus or Rodent Ulcer?

This patient, a man of 55, has a patch as large as a child's palm, the centre of which is over his right sterno-clavicular joint. It is abruptly margined, reddish, and slightly scaly. Those of you who are at some distance take it, I feel sure, for "dry eczema." But he has had it, he tells us, for ten years, and there has been no change other than steady aggression at its borders. Never for a single day has it been quite well. This fact of duration with incurability at once settles the suggestion of eczema. It is one of two things, either lupus vulgaris or rodent ulcer, and in either case it deviates from the usual type in being exceedingly superficial. Its surface is a thin, supple, florid scar, and only at its margins is there any trace of thickening. It has never ulcerated. The man attributes its beginning to the irritation from a metal stud in his shirt. He knows of no family history of either tuberculosis or cancer. I think that we must diagnose it as rodent ulcer, for its polycyclical edge and its entire want of thickening are unlike lupus. Some forms of rodent ulcer are exceedingly superficial, the amount of neplastic growth being extremely little. If this patch occurred on the female breast we might call it Paget's nipple cancer. As to treatment, I would advise the use of the X-rays or of the actual cautery.

Granuloma Fungoides. Suggestion as to the Nature of the Pre-mycosic Stage.

The patient whom I am about to bring before you is a clergyman, who is very kindly willing to aid in the advancement of clinical knowledge by permitting me to make a demonstration of his disease. It is a typical example of what we know as Mycosis or Granuloma fungoides, and I shall be able to show you the different stages of this malady to great advantage. You will see the pre-mycosic erythema and the developed sarcoma-like growths side by side. It began, as it often does, by a form of dermatitis which was then called psoriasis, and for which the usual remedies were prescribed. Some years later a well-known dermatologist thought it was leprosy, and for nearly a year he took chaulmoogra oil. Then the diagnosis reverted back to psoriasis, and arsenic was again given. You will see directly that there still are conditions exceedingly like those of leprosy, and we cannot much wonder at the mistake. There is, however, no anæsthesia, and most certainly it is not leprosy. The conditions which resemble it are ill-defined patches of dusky erythema—the "scorch-patch" —close to some of which are areas of white supple skin. Those which denote mycosis are patches and bands of thickened and dusky skin, sometimes rising to a height of a third of an inch. They are not arranged with symmetry. On his left upper arm there is a bossy growth as big as a half-crown and fully a third of an inch in elevation, with no representative on the other limb. It has been present only a few months, and were it alone it would be taken for "sarcoma of skin." It is fifteen years since the psoriasis began, and ten since it had so far changed its aspect that it was taken for leprosy, and two since the mycosic growth occurred. The patient has remained throughout in good health, and he is still very muscular. He has recently observed that *whenever he takes arsenic it brings out an eruption like tuberous nettle rash.*

Now I attach considerable importance to the last bit of evidence which I have mentioned, for it has often occurred to me that our mycosis cases may possibly be those in which there is some idiosyncrasy as regards arsenic and other drugs. We now know for certain that the long-continued administration of arsenic will render the whole integument liable to produce epitheliomatous growths. This has been confirmed by at least four independent observers. We know also that iodide of potassium will in some persons produce tuber-like masses (iodide sarcoma), and if it be not put aside will cause death. Now I am inclined to raise a doubt whether there be such a malady as mycosis fungoides as a substantive and *de novo* disease, and to suspect that not infrequently the conditions so named are rather drug-eruptions engrafted on old cases of psoriasis, eczema, and other forms of non-malignant dermatitis. Of course, in adopting such an hypothesis, I have to call in aid the supposition of idiosyncrasy. It is, however, the fact that these mycosic growths almost always occur in those who have suffered for years from psoriasis, and have taken arsenic, possibly iodides, and other drugs, very freely.

NOTES ON DISEASE IN INDIA.

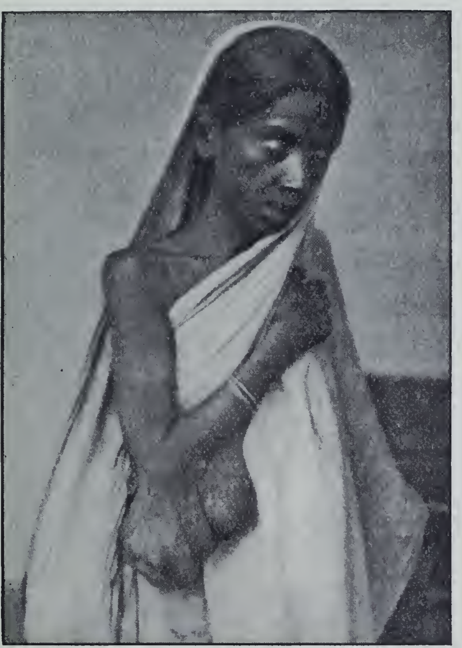
BY THE EDITOR.

During my recent three months' tour in India, although its main object was the investigation of leprosy, I endeavoured to see as much as I could of other diseases. I visited the Hospitals of all the places at which I stayed, more especially those of Colombo, Kandy, Madura, Madras, Calcutta, Lahore, Agra, Delhi, Amritzar, Jullunder, Jeypore, and Bombay. Many of these I visited on several successive days, and attended in out-patients' rooms as well as in the wards. I also visited the pathological museums, where there were any, and always asked especially to be allowed to look over any collections of drawings or photographs which had been made. Everywhere the most kind and courteous assistance was afforded me, and many were the very profitable conversations which I had with college professors and others holding hospital appointments. Amongst the subjects to which attention was especially given I may mention the prevalence of cancer, the prevalence of phthisis and of the various skin diseases which are believed to be associated with tuberculosis, bronchocele, diabetes, elephantiasis, and Madura foot. In respect to syphilis, I was much interested in trying to ascertain whether or not it presents any peculiarities in the dark races, and whether it is as a disease more or less severe than in England. It will be seen that most of these subjects are of as much interest to English practitioners as to those abroad. I was greatly struck from the first with the smallness of local peculiarity which Indian diseases present, and their general sameness with those of Europe. On some of the subjects named I have brought home opinions and facts which may, I think, be of interest to others, and these I now purpose to embody in a series of Notes.

I most freely admit that, travelling rapidly as I did, and spending only a short time at the several places of observation, it is very easy to form mistaken impressions or even to blunder as to fact. For this possibility I must ask the indulgence of my readers. Since my return home—in the hope as far as possible of avoiding mistakes—I have gone through the volumes of the *Indian Medical Gazette*—a mine of clinical observation—and also other Indian journals. In the notes which I now offer to the readers of the POLYCLINIC will be found many selections from these journals, as well as records of my own observations. These must be given in a somewhat fragmentary way, but they will possibly be not less instructive than if expanded into more formal contributions. Impressions and fragments of knowledge are, in fact, for the most part all that can be obtained as to disease in India. The data for trustworthy statistics exist in but very few instances. Obstacles of which we in England have but little conception stand in the way of clinical and pathological research in Indian practice. The enervating climate, the various languages, race and religious prejudices, the overwhelming vastness of the population in relation to the number of skilled observers, combine to make exactitude of research on a large scale for the present impracticable. Much, however, has been done, and each year witnesses progress, and everything may be hoped from the zeal of those now engaged in the work. Meanwhile, however, there must remain many subjects in Indian medicine concerning which the general impressions of well-informed observers are more trustworthy than so-called "statistics."

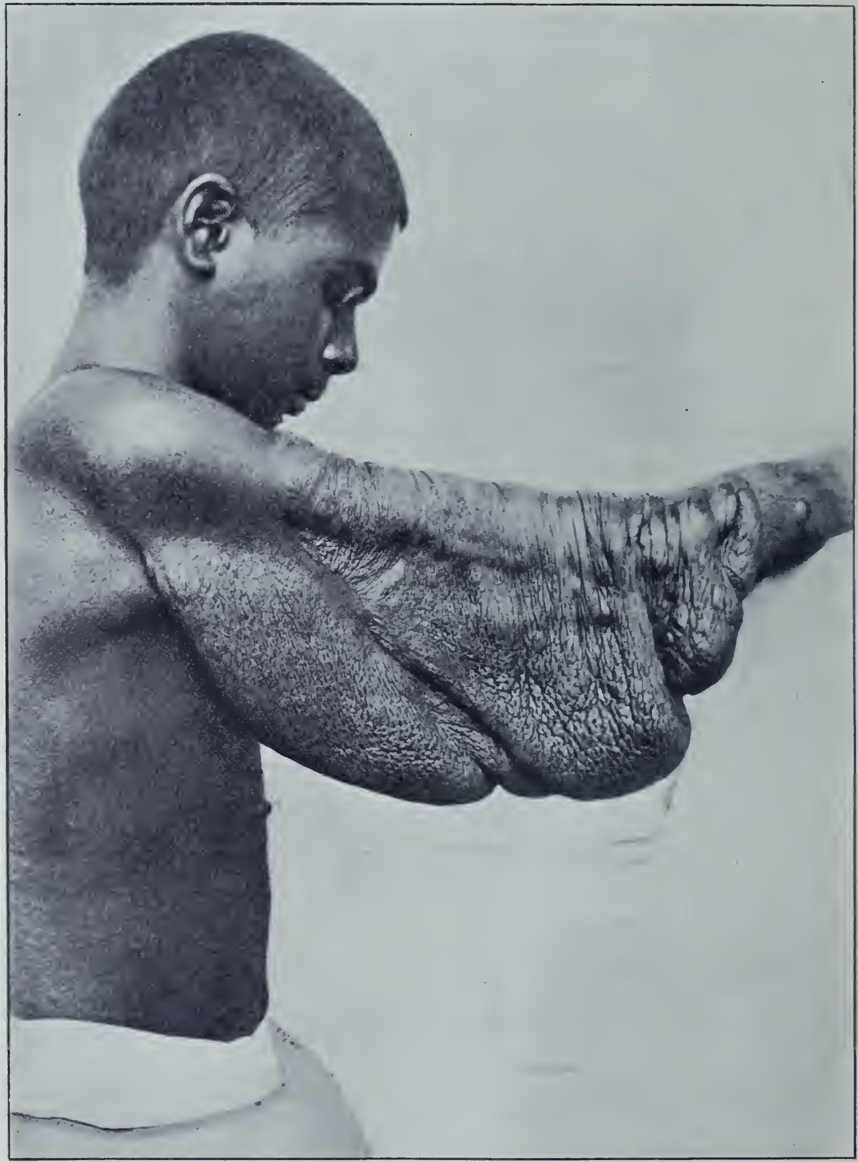
Molluscum Fibrosum and Dermatolysis.

It will be generally accepted that the recognition of pathological forces (sometimes erroneously called "laws") is of much greater importance than the multiplication of special names, however well devised. Such forces often explain at once a variety of phenomena which at first sight may have appeared to be unconnected, and bring them into orderly relation one with another. The force which receives illustration in the two portraits here introduced is that of stagnating or retarded fluids in promoting overgrowth. This is the force which chiefly is at work in the formation of the huge deformities which occur in elephantiasis, and the effects of which are to be observed in all instances in which new growths or swollen parts become pendulous. In all parts which are pendulous the circulation is impeded, transudation occurs, the softer structures become serum-laden, and overgrowth follows. This is observed in all forms of polypus, and in very marked degree in elephantiasis of the genitals. Our present Illustrations concern the hypertrophies which sometimes follow from the tumours of molluscum fibrosum. These tumours (present at birth, but often small), being placed superficially in the skin, have a tendency as they grow to become pendulous and to drag down with them the skin to which they are attached. In this way they sometimes bring about hideous or grotesque deformities. The larger the growth and the heavier the hypertrophied mass the greater is its power in the direction described, and thus become applicable the expressions, *viresque acquirit eundo*, "to whomsoever hath shall be given," and many similar ones. In vol. v. of the POLYCLINIC, page 62, will be found the portrait of a man in whom a huge saddlebag-like flap of skin hung from one shoulder, covering the chest or back according as it was displaced behind or to the front. A very remarkable example of the same was published a little time ago by Mr. Whitehead of Manchester, in which the upper extremity was amputated on account of the encumberment caused by one of these growths. The term dermatolysis is sometimes given to those varieties of the condition in which extension of down-dragged skin is very conspicuous. That the congenital tumours of molluscum fibrosum are usually the starting-point of these displacements of skin is almost invariably evidenced by the presence of such tumours on other parts of the surface. Often, however, they appear to do little more than by their weight initiate the pendulosity. The rest follows as the result of the stagnation-force to which we have referred.



From a photograph given to Mr. Hutchinson by Dr. Arthur Powell.

Molluscum fibrosum appears to be equally common in all races, and its results in causing these deformations are often conspicuous in regions where surgical treatment is not readily available, for, of course, the proper measure is removal of the mass in an early stage. The necessity for amputation or even for an excision so extensive as to be attended by any kind of risk ought never to arise. In India these hypertrophies are often seen, and the two illustrations now given are both taken from Indian practice.



From a photograph given to Mr. Hutchinson by Colonel Murray, Professor of Surgery in the Calcutta College.

Skin Diseases in India.

As long ago as 1873, Dr. W. J. Palmer had supplied us with certain data respecting the skin diseases met with in Calcutta. He states, respecting lupus, that eight cases had been treated at the dispensary, adding, "But none were seen either amongst the Europeans or the healthy natives examined." He had seen no "yaws." Acne he found more frequent amongst Europeans than natives. Molluscum contagiosum he had not seen. During the two years to which his notes refer 118 cases of elephantiasis had come under care; in twenty-nine the leg being affected, and in eighty-nine the skin of the genitals. Two cases of epithelioma of the penis afforded the only examples of any form of malignant disease of the skin which had been observed. (*See* Leader, p. 183.)

Cancer in Kashmir.

Dr. Mitra, Chief Medical Officer, Kashmir, writing in 1889, remarks that, according to the theory that river valleys, where overflows take place, are especially liable to cancer, that disease ought to be common in Kashmir, but that it is not so.

He confirms the statements of others as to the occurrence of epitheliomata on the thigh and abdomen, attributed to the use of the kangri, and suggests the term "kangri cancer." (*See* Leader on "Causes of Cancer" in our last issue).

Between the years 1886 and 1897—that is, ten or eleven years—only sixteen cases of cancer of the breast were operated on in the State hospitals of Kashmir (Mahommedans twelve, Hindus four). He records an interesting case of cancer *en cuirasse.*

Cancer at Ladak.

Assistant-Surgeon Cayley, writing from Ladak, near Kashmir, mentions in a list of 430 admissions to the Mission Hospital, "carcinoma, six cases," but gives no particulars. The Ladakis are a mountain people, and of dirty habits. They are of Mongol descent, and they probably use braziers. (*See* Leader, p. 183.)

Cancer in India.

Dr. Norman Chevers, in 1884, wrote on cancer in India. Whilst admitting that diseases of this class are by no means remarkably prevalent in India, he yet thought that some forms were tolerably common. Concerning scirrhus of the breast, he wrote: "Although I have known it occur in several cases, true scirrhus is undoubtedly rare in Lower Bengal. It is not in India the scourge of Englishwomen as it is at home."

Dr. Chevers thought that epithelial cancer was as common in India as in England, but his experience would appear to have been chiefly of the European population, and all the cases which he specially mentions were in Europeans.

The surgical report of the Madras General Hospital for 1882 recorded fourteen operations for cancer; eight were amputations of the penis, and five were for the disease of the lower jaw, lip and tongue. Thus almost all were for cancer of local origin.

Xanthelasma and Jaundice.

Gall stones are reported to be common in Calcutta, and so also various forms of jaundice. My attention was drawn by Major Drury to two excellent examples of symmetrical Xanthelasma of the eyelids. The subject of one was a distinguished native physician, and of the other a registrar in the employ of the Medical College. Both were past middle age, and in both the yellow patches were in the usual positions and of a very deep tint. In the second case I obtained the history that the man had recently passed through a severe attack of jaundice, but this was long subsequent to the appearance of the xanthelasma patches. He had otherwise enjoyed good health, and had not regarded himself as a bilious subject. I could not learn that any other forms of xanthoma had been recognised in Indian practice, and I made especial inquiries as to the diabetic form, having regard to the fact that diabetes is very common. The collection of drawings in the Calcutta College Museum did not contain any illustrating xanthoma or xanthelasma.

LEPROSY IN INDIA.

Report of Meeting to receive Mr. Hutchinson's Report.

(From *The Times.*)

As we have already published many of the facts which were referred to in Mr. Hutchinson's report as to his tour in India in connection with leprosy, it is unnecessary to give the paper in detail. We content ourselves with the following report of the meeting which appeared in *The Times* on the following morning :—

"A meeting was held on Friday at the Polyclinic, Chenies Street, Gower Street, under the presidency of Lord George Hamilton, M.P., when Mr. Jonathan Hutchinson gave an address on the results of his recent tour in India for the investigation of leprosy. There was a large attendance.

"The Chairman remarked that the subject was one in which the Indian Government naturally took great interest. He was glad to say that the disease had largely diminished in India during recent years, and that satisfactory result was undoubtedly due to the scientific investigations which had been conducted over a series of years. The Commission which was appointed thirteen or fourteen years ago to inquire into the causation of the disease were not unanimous in their conclusions. Mr. Hutchinson had always maintained that leprosy was brought about by a particular class of food, and his visit to India was to obtain further support for that contention. It would be ridiculous for him, as Secretary of State for India, to associate himself with one theory more than other. Any action which he ultimately took must be on the advice of his professional and scientific advisers. As the outcome of the investigations which had been made, leprosy had so diminished in certain parts of India as to warrant the hope that within an appreciable period it would have disappeared altogether.

"Mr. Hutchinson, who was cordially received, then delivered his address, the main points of which were published in *The Times* of April 11. Having referred to the evidence which he had accumulated in support of his theory that leprosy was caused chiefly by the consumption of unwholesome fish, he said that he believed the removal of the salt tax would be an immense boon to the community in various ways, and that it would tend to prevent the prevalence of the disease. Already the Government had arranged that salt should be supplied to large fish factories free of the tax, but a great deal of fish was cured in the people's homes. He also advocated the distribution of leaflets among the peasantry, explaining the dangers of eating bad fish.

"Sir William Broadbent, in moving a vote of thanks to the Chairman, said that the question of leprosy was one in which he had long taken an interest. He had watched from year to year the development of Mr. Hutchinson's idea, and had seen him break down one objection after another to his theory. The facts were very much against personal contagion. Leprosy did not specially affect great centres of population which facilitated personal communication, and, without acknowledging that he had reached a condition of certainty on the subject, he must admit, particularly with the additional explanation of commensal possibilities of communication, that there seemed to be a gradually increasing weight of evidence in favour of the theory which had been put before them. Personally, he had followed with great interest, an interest almost approaching to conviction, Mr. Hutchinson's work in connection with leprosy, but he did not profess to have been enabled to consider sufficiently all the evidence which might be brought to bear on the other side.

"Dr. Theodore Williams seconded the proposition, which was carried.

"The Chairman, in reply, referred to some remarks which were made by Mr. Hutchinson as to the inaccuracy of Indian statistics. He admitted that it was difficult in India to get accurate statistics relating to such a matter as leprosy. There were great difficulties in the way, owing to the variety of languages and dialects. Still, he thought that each year they were getting rid of more and more irregularities and showing some improvement. He admitted that the salt tax was a heavy one, but, until some other source of revenue could be found, he was afraid that it must remain. The tax, he might remind them, had been reduced considerably in the course of the last few months, and he was sanguine enough to believe that the reduction would lead to such an increased consumption as not to cause any loss in revenue; and if that came to pass it would be within the power of the Indian Government further to reduce the tax. He had long thought that the heavy salt tax did limit the consumption and restrict various industries, such as fish-curing; but he never realised before that there was any connection between the high salt tax and the prevalence of leprosy in India."

ENGAGEMENTS AT THE POLYCLINIC DURING THE MONTH OF JUNE.

June 2, *Whit Tuesday.*—Sir W. H. Broadbent.—Consultations (Medical) at 4 p.m.

June 3, *Wednesday.*—Mr. R. Harrison.—Consultations (Surgical) at 4 p.m. Dr. Lambert Lack.—Lecture on Nasal Polypus, at 5.15 p.m.

June 4, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Mr. Reginald Harrison.—Lecture on Hæmaturia, at 5.15 p.m.

June 5, *Friday.*—Mr. Marcus Gunn.—Consultations (Eye) at 4 p.m. Dr. Seymour Taylor.—Lecture on the Parasites of the Gastro-intestinal Canal, at 5.15 p.m.

June 8, *Monday.*—Dr. James Galloway.—Consultations (Skin) at 4 p.m. Dr. E. Cautley.—Lecture on Diarrhœa in Infants, at 5.15 p.m.

June 9, *Tuesday.*—Dr. Harry Campbell.—Consultations (Medical) at 4 p.m. Mr. G. Lenthal Cheatle.—Lecture on the Relation of Carcinoma to Nerve and Trophic Areas, at 5.15 p.m.

June 10, *Wednesday.*—Mr. Howard Marsh.—Consultations (Surgical) at 4 p.m. Mr. Treacher Collins.—Lecture on Ophthalmia, at 5.15 p.m.

June 11, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Dr. C. Theodore Williams.—Lecture on the Etiology and Treatment of Hæmoptysis, at 5.15 p.m.

June 12, *Friday.*—Dr. H. Tilley.—Consultations (Ear, Nose and Throat) at 4 p.m. Mr. Mayo Robson.—Lecture on the Surgical Treatment of Gastric Ulcer, at 5.15 p.m.

June 15, *Monday.*—Dr. J. F. Payne.—Consultations (Skin) at 4 p.m. Dr. A. Haig.—Lecture on Uric Acid as a Cause of Circulation Diseases, at 5.15 p.m.

June 16, *Tuesday.*—Dr. James Taylor.—Consultations (Medical) at 4 p.m. Dr. A. Haig.—Lecture on Uric Acid as a Cause of Anæmia, at 5.15 p.m.

June 17, *Wednesday.*—Mr. J. Berry.—Consultations (Surgical) at 4 p.m. Dr. Walter Carr.—Lecture on Meningitis in Childhood, at 5.15 p.m.

June 18, *Thursday.*—Mr. Hutchinson.—Consulations (Surgical) at 4 p.m. Dr. Purves Stewart.—Lecture on Hysteria and its Diagnosis, at 5.15 p.m.

June 19, *Friday.*—Dr. Dundas Grant.—Consultations (Ear, Nose and Throat) at 4 p.m. Col. Kenneth MacLeod.—Lecture on the Physical Requirements of the Public Services, at 5.15 p.m.

June 22, *Monday.*—Dr. A. Whitfield.—Consultations (Skin) at 4 p.m. Mr. J. Hutchinson, jun.—Lecture on Diseases of the Tongue, at 5.15 p.m.

June 23, *Tuesday.*—Dr. Guthrie Rankin.—Consultations (Medical) at 4 p.m. Mr. F. C. Wallis.—Lecture on the Preparation, Methods and After-Treatment in Operations, at 5.15 p.m.

June 24, *Wednesday*.—Mr. Jackson Clarke.—Consultations (Surgical) at 4 p.m. Dr. Walter Carr.—Lecture on Meningitis in Childhood, at 5.15 p.m.

June 25, *Thursday*.—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Mr. J. Hutchinson, jun.—Lecture on Diseases of the Tongue, at 5.15 p.m.

June 26, *Friday*. — Mr. N. MacLehose. — Consultations (Eye) at 4 p.m. Dr. T. N. Kelynack.—Lecture on Intrathoracic Tumours, at 5.15 p.m.

June 29, *Monday*.—Dr. J. M. H. MacLeod.—Consultations (Skin) at 4 p.m. Mr. J. Hutchinson, jun.—Lecture on Diseases of the Tongue, at 5.15 p.m.

June 30, *Tuesday*.—Dr. J. E. Squire.—Consultations (Medical) at 4 p.m. Mr. F. C. Wallis.—Lecture on Preparation, Methods and After-Treatment in Operations, at 5.15 p.m.

July 1, *Wednesday*.—Mr. Johnson Smith.—Consultations (Surgical) at 4 p.m. Mr. James Berry.—Lecture on Harelip and Cleft-Palate, at 5.15 p.m.

July 2, *Thursday*.—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Mr. J. Hutchinson, jun.—Lecture on Diseases of the Tongue, at 5.15 p.m.

July 3, *Friday*.—Mr. R. Lake.—Consultations (Ear, Nose and Throat) at 4 p.m. Dr. A. Whitfield.—Lecture on Eczema, at 5.15 p.m.

CORRESPONDENCE AND ANSWERS.

Latency and Incubation.—Besnier has well remarked that Latency should be distinguished from Incubation. The latter term must always imply that the process of development is going on, and that in due time the results will be manifest. During the period of incubation the disease is very frequently latent, but not necessarily so. The term "latent" should imply that the germs of disease are present without any revealing phenomena; incubation may or may not be going on, and if it be not, then latency may be protracted over any length of time.

* * *

Gull on Keloid and Leprosy.—It would appear that Sir William Gull in his earlier days regarded what was then called "Addison's keloid" as leprosy. He is reported to have said, "I remember a case I saw with Dr. Addison of a man with a white mark on his forehead. I said to Dr. Addison 'Aaron would know more about that than we do.' 'Why?' he said. 'Because he and his successors had to decide upon it.' 'What?' he said, 'do you think it is leprosy?' 'I am sure of it.'" Gull also regarded the cicatricial lines in the skin as leprosy, including also true cicatricial keloid. As regards contagion, he wrote "the disease is in all probability not contagious, but endemic. Ignorance is always haunted by the idea of contagion."

VENNER in his "Via Recta ad Vitam Longam," published in 1650, states that there was at Bath a little bath specially allotted to lepers.

* * *

"IN 1109 William de Percy, first Abbott of Whitby, having compassion on a good and righteous, but leprous, man named Orme, founded a hospital for lepers."

* * *

A. B. C. ASKS if it is correct to speak of the operations of removal of a testis as "castration"? No, certainly not, but it is often done by men who should know better. *Castration* means "to emasculate: to remove the testicles: to geld." To speak of the removal of one testicle as "castration" is therefore wrong, and it is, of course, absurd to talk of "double castration." Our correspondent also enquires as to the difference between a *ptomaine* and a *toxine.* A ptomaine is an alkaloid generated during decomposition and may be poisonous or otherwise, a toxine is a poisonous ptomaine.

* * *

THE "MOSQUITO PLANT."—The plants which are now attracting attention under this name are various species of basil. Basil is one of the labiate family and akin to Lavender. In America the sweet-scented basil *Ocimum basilicum* is commonly known as lavender, and is used by housewives, &c., for the same purposes as lavender in England. In India and other hot countries where mosquitoes are troublesome it has long been held that malarial fevers could be prevented by growing basil in the garden. Its free cultivation during the development of the city of Bombay is said to have freed the districts concerned of the plague of mosquitoes. None of the basils are indigenous in England, but they all grow freely in India and other warm countries. In England and America it is often grown in gardens. Clearly some systematic enquiry should be made as to its efficacy in repelling mosquitoes.

The basils contain a form of stearoptine resembling camphor. It is possible that rosemary may be as efficacious or even more potent. The leaves of the patchouli, an allied plant, have long been used in Penang for stuffing mattresses and bolsters. They are believed to keep off contagion. Possibly they only keep off fleas and mosquitoes.

* * *

CATHOLIC FAST DAYS.—We quote the following from an old volume of the *Quarterly Review* (vol. lxix., p. 229). "Time was when fish formed a great part of the diet of the people of this country, and when religious observances lent their aid to enforce a system which operated beneficially both on body and mind. Abstinence from flesh on certain days and at certain seasons was rigidly prescribed by the Roman Catholic ritual; and it seems to have been considered almost an article of faith, the breach of which was unpardonable. When Cardinal Wolsey was dying at Leicester Abbey, after he had eaten of a cullace made of chicken a spoonful or two, at the taste quoth he 'whereof was this cullace made?' 'Forsothe, sir, of a chicken,' 'Why,' quoth he, 'it is fasting day!' (being St. Andrew's even). 'What though it be?' quoth his confessor 'ye be excused by reason of your sickness.' 'Yea,' quoth he 'what though? I will eat no more.' Then was he in confession the space of an hour." (*See* Cavendish's "Life of Wolsey.")

THE POLYCLINIC

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JOURNAL OF THE MEDICAL GRADUATES' COLLEGE, LONDON.

Vol. VII., No. 7.—July, 1903.

LATE MARRIAGES A POSSIBLE CAUSE OF THE INCREASE OF CANCER.

May it be conceded as probable that the offspring of middle-aged or elderly parents are not born with precisely the same proclivities and endowments as those of the young? It is assumed that for the most part an infant starts life on its own account freed from the burdens which time has placed upon the shoulders of its parents, and destined to run its own career as a human being independently of them. It is obvious, however, that this is true only, as we have said, "for the most part," and how about the remaining part? To what extent and in what degree may the acquisitions of the parent, whether for good or for evil, be held to be transmissible to offspring? A very important department of this enquiry will concern the transmission of intellectual aptitudes, and will have to ask how far, *e.g.*, a facility in the acquisition of languages, ability to deal with mathematical problems, or an insight into the deep truths of poetry, may be handed down from parent to child. Instead of saying from parent to child, it might be preferable to say from generation to generation, for no enlightened student of the laws of vital inheritance would allow himself to be restricted to immediate parentage. The days when, in reference to some deeply-ingrained constitutional endowment or proclivity, it was thought sufficient to ask whether the father or mother or one of the grandparents had shown it are, it is to be hoped, well passed. We now know that such tendencies may, whilst yet potent, easily remain unrevealed in individuals and the only trustworthy method of estimating the possibilities of inheritance is by taking into consideration a considerable section of the community into which the individual is born, and of the whole of which he is the legitimate heir.

A child has but two parents, but he has four grandparents, and in the third generation eight, and in the fourth sixteen progenitors, and from any of these, or more probably from the whole of them, or, indeed, from a yet far wider circle, the inheritance may come.

Let it not be thought that in the suggestion just made we have lost sight of the question with which we set out as to whether an elderly parent is likely, in virtue of his senility, to transmit any peculiarity to his child. Although it may be true that the only safe way by which we can estimate the results of such transmission is by observing large sections of the community, or even whole races, yet it is surely obvious that in these racial changes we have only the sum of the attainments of individuals. In the attempt to apply these suggestions to the investigation of heredity in disease, we may suitably ask: Do the later born children of a gouty parent inherit any greater liability to gout than the first born? It is scarcely likely that a child born after his father has lived fifty or sixty years, and passed through many attacks of gout, will be in precisely the same condition as one born in his parent's youth. It is surely reasonable to believe (*pace* Weissmann) that he will in some degree inherit the tissue proclivities which his parent had acquired. To doubt it would be to set aside all that we most religiously believe as to inheritance. It is under the influence of this force of inheritance that all the peculiarities of civilised races, as compared with savage ones, have become developed and ingrained.

If we now pass from gout to cancer it may be suggested as a primary proposition that the nearer to the cancer-period in the parent a child is begot the greater is the risk that he may inherit a tissue proclivity to the cancerous process. Now the cancer-period is that of middle age and commencing senility;—emphatically it is not that of youth. The children born to young parents are begotten with very rare exceptions at periods long prior to the development of cancer or of any special tendency to it. Let us suppose two communities, in one of which marriage shall be prohibited to men until the age of fifty, whilst in the other it shall be encouraged at eighteen. The suggestion made is that in the former there would ensue a definite tendency to the increase of cancer.

If we next ask whether such a hypothesis is in accord with the facts, it may, we think, be confidently asserted that, so far as we know the facts, it is. Cancer is far less common in the lower animals than in man, and they, as a rule, wed early. In man it is far less common in lowly-civilised communities than it is amongst others. Its recent increase has, indeed, been noted exclusively amongst the more highly-civilised nations, and it is amongst these that for some centuries past the age at which prudence permits marriage has been steadily rising.[1] It is even possible that religious creed may have something to say to the result. Roman Catholicism very properly encourages early marriage, and there are some facts which might seem to show that there is less cancer amongst its adherents than amongst Protestants. This is notably the case in Ireland, where Dr. Matheson's interesting statistics show that the prevalence is more than double in Protestant Ulster what it is in the peasantry of the South-West.

It will be thought that, after all, such an influence as that now suggested can only be of very small potency in causing the increase of cancer. It is, however, to be remembered that the prevalence of cancer in ratio with the population is but very small, and that we do not need to call in for its explanation any very powerful or widely pervading forces. Putting aside for the moment local causes, such as those referred to in our article in May, we may cite as those which contribute to predisposition the increased longevity of modern times, the increase in risk of ill influence from mineral poisons such as arsenic, and, lastly, lateness of marriage as favouring inheritance. The share taken by the two latter may be only small, but it is no doubt real.

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[1] A young lady complained in a recent issue of *Punch* that "nowadays no one marries until he is eighty," and her impressions are possibly as valuable as some statistics.

DEFECTIVE DIFFERENTIATION OF SEX.

Although we have been accustomed to regard the organic differentiation of the sexes as long ago complete, there can be no doubt that it is liable to variations in degree not only in individuals but in whole races. That it may concern character is a matter of daily observation, and is recognised by all writers of fiction. The aspect in which chiefly the matter interests us as students of physiology is that the special organs of sex are sometimes quite definitely involved. These remarks have been suggested by the writer's recent experience in India which has confirmed an impression long ago formed that the effeminate Hindoo race is especially prone to the condition known as Gynecomastia. This name is, as most will know, applied to imperfect suppression of growth of the mammary gland in individuals otherwise characterised as males.

There can be no doubt that this condition is much more frequent amongst Hindoos than it is in Europeans and most other races. At the hospital at Madura the writer saw a man, one of whose breasts had been excised in consequence of the annoyance which this condition caused to him. It was intended to remove the other also. Amongst the patients at other hospitals in different parts of India other examples of the condition came under notice, not, however, usually with any intention of removal of the gland. In the record of the Matunga Leper Asylum (Bombay) the reporter, Dr. Choksy, incidentally records that amongst the inmates were two men who had large breasts, and who could squeeze milk from them. Isolated examples of these occurrences are met with in England, but in India they are fairly common.

We must remember that most of the special peculiarities of sex are of the nature of incomplete suppressions. The mammary gland remains in the male in a rudimentary form, and sexual hair persists potentially in the female, although it does not as a rule grow. The influences which bring about the suppression are the development of competing organs. The process is, however, one of some intricacy if we come to detail, but its main features are obvious. The development of masculine qualities suppresses the organs peculiar to the female and the converse. We may, therefore, assume that structural evidences and imperfect suppression will be coincident with like imperfections in the character as a whole. The facts as regards the Hindoos are in strong confirmation of this supposition. It is not for nothing that they are esteemed a somewhat effeminate race, and gynecomastia is only one of the features in which structurally the distinctions of sex are imperfectly marked.

It would be of much interest to endeavour to trace the causes of the facts to which we advert. Two conspicuous ones may be noticed—sameness of occupation and sameness of food. Through almost countless generations the two sexes in the Hindoo population have both lived on a somewhat restricted diet of almost exclusively vegetable food. Beef has, of course, been tabooed, and the flesh of other animals, if not avoided, has been difficult to obtain. Alcoholic beverages have also been almost wholly absent. Similarity of occupation in field and home has rendered it necessary for the woman to live as liberally as her lord and master, or rather it has reduced the latter to the level of his mate. It has not been so in the beef-eating and beer-drinking races. Amongst them the man has done the hard labour and has consumed the larger share of stimulating food. In countries where hunting and fishing are prominent pursuits there in some degree, often a very definite one, a similar unequal allotment of food will result.

We come, then, to the general conclusion that wherever the members of the two sexes follow the same occupations and live upon the same food (as regards both quantity and quality) there the distinctive features of sex will tend to diminish. The whole organism will be influenced, and the condition will be made apparent by structural peculiarities and, what is of far greater importance, by corresponding modifications of character. There is surely a lesson for us in these facts. There is, we fear, only too much reason to believe that in the Indian character defective differentiation of sex is manifested in far more serious aspects than the occurrence of gynecomastia.

The following quotation from Guthrie's "Geography" records the opinion of an observer a century ago, and although exaggerated is not wholly inapplicable to the present time :—

"The reasons above-mentioned account likewise for their being free of all those passions, particularly that of love and sensations which render the rest of mankind either happy or miserable. Their perpetual use of rice as their chief food gives them but little nourishment, and their marrying early, the males before fourteen and the women at ten or eleven years of age, keeps them low and feeble in their persons. A man is in the decline of life at thirty and the beauty of the women is on the decay at eighteen."[1]

LEPROSY IN KASHMIR.

I did not visit Kashmir. The distance was great, and it was too early in the season. The omission is to be regretted, for the problem presented there has some peculiar features. Leprosy is only very moderately prevalent in Kashmir, and its victims are almost wholly of one religion, and of one sex. Writing in 1891, Dr. Ernest F. Neve reported of 152 patients, who during eighteen months had attended at the Mission Hospital, that 146 were males and only six females, and that 147 were Moslems and only five Hindus. It is to be borne in mind that the Moslem population outnumbers the Hindus in the proportion of 93 per cent., that the Hindus are the richer class, and that amongst Moslems there is some reluctance on the part of women to consult English doctors. In a later communication (1902) Dr. Neve somewhat modified his statement in reference to sex, and gave females instead of 4 per cent. as 10 per cent. In this second paper he specially considered the fish hypothesis, and whilst admitting that to a certain extent it seemed applicable, thought that it failed to explain why the boatmen and fishermen appeared to escape, and those engaged in agriculture chiefly suffered. He also repeated the statement made in his first paper that a considerable proportion of the lepers denied having eaten fish. On the other hand, a very considerable number denied having ever come in contact with lepers, and emphasis was laid on the fact that children and young people were almost exempt, and that the victims were usually men of middle age. If the fish hypothesis were rejected, certainly none other was offered as in any way bearing upon these singular facts.

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[1] Dr. Robert Bird, F.R.C.S., of the Calcutta Medical College, has recorded in the *Indian Medical Gazette*, January, 1902, four cases of gynecomastia. Three of the patients are stated to have been Hindoo, and, although the fourth was a Mussulman, it is, of course, not certain that he was not of Hindoo descent. See p. 280, where Dr. Bird's illustrations are reproduced.

It is possible, however, that these facts support the fish hypothesis much more definitely than Dr. Neve supposes. As regards the denial of a certain number that they had eaten fish, it is very possible that more detailed enquiries might have elicited a different statement. It may have been that what was meant was "fresh fish." Fish as food in all forms is admitted to be abundant in Kashmir, and as the bulk of the lepers were Moslems, there was no reason whatever why they should not have eaten it excepting distance from the supply. That the shepherds and farm labourers at a distance from the lake and from streams should suffer more than the boatmen is what might be expected, since the latter would get their fish fresh and the others in a cured condition. It is exactly what is now occurring in South Africa. The farm labourers supply the denizens of Robben Island, and not the fishing villages; but it is to farm labourers that the salted fish is sent. The boatmen in the vale of Kashmir are, besides, a very small number as compared with those employed on the land. That Hindus should be exempt in comparison with Moslems is again what we should expect, since the former are, in profession at least, vegetarians, and the latter eat fish freely. The disproportion in the sexes receives also, I must think, its only possible explanation in the suggestion that the disease is caused by some article of food. How could a contagious or hereditary malady remain almost exclusively restricted to men?

J. H.

LEPROSY AT BALASORE.

Mr. Vincent Richards, in a very valuable paper in the *Indian Medical Gazette* for September, 1889, controverts the fish hypothesis, but at the same time contributes valuable facts in its support.

Writing of Balasore, he says that the disease was especially prevalent in one spot, and that in Balasore 13 per cent. of the lepers were fishermen. In Kaligoan, a village five miles from the sea and consisting of 177 mud huts, the disease was very prevalent. Rice is grown. "The people generally are said to be well to do, and the respects in which their diet differs from that of the general population are that they eat more fish and less dal, and perhaps more salt." The population is 947 and there are no fewer than forty-five lepers. The Gokhas, Khandras, Khandaits and Khadals are the chief sufferers. The Gokhas are the fisherman caste and they suffer most of all. Mr. Richards mentions Brahmans and makes not the slightest allusion to any prejudice against fish eating. He speaks of it as if all classes eat fish.

Mr. Richards' argument against the fish hypothesis is based upon statistical data, which show that in most places there is no relation between the number of those concerned in fishing or fish dealing and the number of lepers. The fallacy is that he makes no distinction between salt fish and fresh fish. It is not a question as to where fish is caught or where it is salted, but where it is eaten, and in what condition. Concerning the Gokha caste in Kaligoan, he writes: "The fact of the disease being so prevalent amongst this class is undoubtedly remarkable, and certainly seems to indicate that the consumption of fish does exercise some influence in producing this disease."

PRACTICAL MEASURES FOR PREVENTION OF LEPROSY IN INDIA.

As regards the measures which ought to be adopted for the prevention of leprosy in India, the first point would appear to be to diffuse information as to its cause. Leaflets should be distributed widely amongst the native population to explain the dangers which result from the use of unsound fish. In the next place, the Government should direct its attention to supervision of the fish factories, and here again information should be given in the plainest language as to the best methods of curing fish. Inspection of the supply of fish in markets should be instituted. But perhaps of more importance than any of these, it is desirable to afford every facility for the sound curing of fish. Looked at from a medical point of view, and apart from any question of finance, it is most desirable that the salt tax should be wholly done away with. Something has been done already in this direction by the very judicious arrangement under which salt is supplied free of duty to the larger fish-curing establishments, but this is far from being all that is necessary. Fish in India keeps for a very short time, and a great deal of the fresh-water fish which is eaten has undergone very partial preservation by home salting. It is in the home of the fisherman and peasant that salt has to be made cheap. If it be not a necessary of life, it is at any rate in this matter, and in several other directions, necessary to health.

The Dignitaries of the Roman Catholic Church should be moved to forbid the use of fish on fast days. Every encouragement should be given to the formation of leper homes, into which those disabled from labour should be received as a matter of charity. Through their aid, undoubtedly, a certain influence will be exerted in the prevention of commensal communication. This, however, will be but a very small matter, and will apply only to the poorest and the most careless. The law as it at present exists in reference to leper vagrants and the prevention of lepers carrying on dangerous avocations, bringing them into contact with preparation or sale of food, should be enforced.

By far the principal matter is, however, to secure the better curing of fish, and to prevent the sale of that which is unsound.

It is needless to remark that preventive measures of the kind referred to, which would strike at the very root of the evil, would not only obviate much physical misery, but would be a great pecuniary saving to the community. Large sums of money, in part contributed by the benevolence of the public, and in part by taxation, are at present expended in care of the leper community. It would surely be wise to devote a fraction of this to the endeavour to obtain and diffuse information as to prevention of the disease.

LEPROSY IN SPAIN AND PORTUGAL.

The extinction of leprosy in Spain and Portugal would probably be a very easy matter. The prohibition of the importation of salt cod from Norway and Newfoundland would be inefficient, since so long as fasts on which fish only may be eaten are enforced, so long must the salt fish be obtained from somewhere.[1] If, however, the rule of the fast day could be changed so as to permit meat and forbid fish, or, following the example of the Greek Church, to forbid both, then the result so much to be desired, would soon be obtained.

At present there is more than half as much leprosy in these countries in ratio with population as there is in India—the so-called "home of the leper"—and the gross total is as great as that of Norway.

CIRRHOSIS OF LIVER IN CHILDREN.

The occurrence of cirrhosis of the liver in children was mentioned to me by several physicians in India. Some interesting specimens of it were shown to me in the museum at Lahore by Dr. Sutherland.

The first Indian notice of it, I believe, occurred in a paper read before the Calcutta Medical Society, in October, 1887, by Dr. Bolye Chundar Sen. About the same time a detailed report on it by Dr. Howard, of the McGill University, Montreal, was published in the *Transactions of the Association of American Physicians* (June, 1887). Since then the subject has been repeatedly under discussion at our Pathological Society in London.

Dr. Howard collected from various sources no fewer than sixty-three cases, and thought that in more than half of them it was not possible to suggest any definite cause. In India, repeatedly, several cases have been observed in the same family, and there is a considerable preponderance in the male sex. Almost all the cases have been observed in the native population and regarding them all suggestion of alcoholic causation may be at once dismissed.

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[1] "All classes, rich and poor, among the Portuguese eat fish on Fridays and Saturdays throughout the year."—L. B.. 42. Dr. Donnet.

SELECTIONS FROM LECTURES DELIVERED IN THE COLLEGE.

ELEPHANTIASIS: ITS NATURE AND VARIOUS CAUSES.

BY JONATHAN HUTCHINSON.

[THE following remarks constituted the second half of a lecture, the first part of which had been devoted to the illustration of elephantiasis as it is met with in England. Numerous drawings, photographs, &c., had been produced, exhibiting its various stages, and some of them showing hypertrophy in as high degree as anything ever met with in the Tropics.]

Thus, then, Gentlemen, I have, I trust, convinced you that there are no real differences between the cases of elephantoid hypertrophy which we encounter occasionally in England and those which are so common in certain tropical regions. The stages by which the disease advances are the same in both. In both there are the attacks of "elephantoid fever," and in our English cases the final results are not a whit behind those attained in India. The same complications occur in both—the formation of lymph vesicles in the skin, the lymphorrhagia, and the occasional dilatation of lymphatic trunks. The same measures of treatment are required in both. We may fairly, then, dispute the right of tropical observers to draw any arbitrary line of demarcation between English elephantiasis and the form with which they are familiar. It would be a blunder to call the one "true elephantiasis" and the other "elephantoid hypertrophy." The latter is, as we have seen, the more correct designation for both. If it be suggested that the tropical form should be known as filarial elephantiasis, I should have to reply that in the Tropics, as in England, there are probably many cases which are not filarial in origin. Without doubt elephantoid hypertrophy is far more common in some hot countries than it is in any temperate ones, and equally without doubt it is attended for the most part by the presence of filarial parasites. The riddle which these facts present to us is, I think, by no means difficult to solve. Its solution is to be found in the recognition of an intermediate pathological condition which is common to all forms of the disease. That essential condition is lymphatic obstruction, and such obstruction may result from a variety of causes of which filarial lymphangitis is only one.

Thus we have opened before us a most important and very interesting chapter in the pathology of the lymph-system. We have to ask as to the various influences which may cause its obstruction and as to the differences in result which may ensue in connection with them considered severally. At the outset, however, let us recognise that they all have this in common, that they tend to produce œdematous swelling, and that all such œdema, if continued sufficiently long, tends to produce overgrowth of the tissues affected. Lymphatic obstruction, œdema, hypertrophy, in these three, placed in their proper sequence, we have the clue to the comprehension of all forms of elephantiasis. We may at the onset class the causes of lymphatic obstruction in two natural groups—those in which the skin itself is the part first affected, and those in which the lymphatic trunks suffer first, and the œdema of the skin is secondary. In the first of these we have all the cases which begin from wounds or ulcers or attacks of erysipelas, and in the second those in which the pressure of tumours, disease of lymphatic glands, or the plugging or irritation of the lymph-tubes by filarial embryos, are present. It is no new idea to suggest that erysipelas may be a cause of elephantoid œdema. I have myself written about it repeatedly, and so long ago as 1860 Mr. Francis Day, who gave us an interesting report on elephantiasis as seen in Cochin, and who was, I believe, the first to name and describe "elephantoid fever," mentioned erysipelatous elephantiasis as one form of "spurious elephantiasis." As I have explained I see no reason for introducing the word spurious, and I am confirmed in my creed by Mr. Day's admission that erysipelatous inflammation might in some instances induce what he called true elephantiasis.

Now erysipelas is in its nature a cutaneous lymphangitis attended and evoked by the presence of a specific coccus. The fact, long well known, that those who have had erysipelas once are liable to have it again, and in the same region, is one which suggests that the parasitic germ elements may linger long in the tissues, in a quiescent condition, but prone to manifest activity again on provocation or even with a certain approach to periodicity. The most conspicuous feature of erysipelatous inflammation is œdematous swelling, and whether that swelling shall wholly disappear or not, may be understood to depend upon the position of the part affected, whether dependent or otherwise, and, above all, upon the frequency of the attacks and their duration. In their essential nature attacks of erysipelas are fugacious. It is a form of inflammatory activity which never persists for long. We know nothing of a chronic erysipelas. From considerations such as these to the suggestion that the recurring attacks of elephantoid fever are really of the nature of erysipelas the step is but a short one. What else can they be? They are attended by heat and tumefaction in the part involved, they are often ushered in by a rigor, and they are transitory. They occur equally in the filarial and the non-filarial forms, and they cannot, therefore, be in any direct relation with the parasite. Not much of importance has, perhaps, been added to our knowledge of "elephantoid fever" since it was first described by Mr. Francis Day and Sir Joseph Fayrer, but no Indian observer who has written on elephantiasis has failed to mention it, and to corroborate the statements of those observers. All agree that attacks are seldom wholly absent, that they may vary much in severity and frequency in different cases, and that, as a rule, they become less marked as the disease advances. In all these features it coincides with what we observe in English cases. As perhaps might be expected from the greater prevalence of the disease, some of the Indian patients appear to present examples of greater severity of the fever than in any of those which we encounter in England. I have, however, in former times known several patients who from time to time used to seek admission at the London Hospital on account of their recurring attacks. I will quote to you one or two statements by Indian authorities.

Mr. Vincent Richards, in the fifteenth volume of the "Indian Annals of Medical Science," gave a table based upon 636 cases, in which he estimated the frequency of the febrile paroxysms. Only in 3 per cent. had these not been observed, whilst in 20 per cent. they had occurred once a month, and in 38 per cent. twice a month. He discussed the question as to whether the elephantoid fever was malarial, and mentioned amongst its distinctive features primary lymphatic disturbance and also the intensity of the cold and hot stages, which sometimes last for four or five days, the sufferer, in many instances, being delirious the whole time. He noted that, considering the intensity of the febrile attacks and their frequency, they were attended with but little injury to the patients' constitution.

Dr. Hayman Thornhill, writing in Ceylon, describes the fever as follows: "The villagers know the premonitory symptoms well; all gave the same account of it, viz., fever lasting two, three, or four days, attended with pain in the limb, which slightly enlarges; then subsidence of the fever and swellings, and disappearance of the pain; then some days of freedom, and then a recurrence of the symptoms, until at last permanent enlargement results. Many who as yet have no permanent enlargement of the limb suffer from this fever and pain, and know that they have got the barawa disease."

In the cases in which the enlargement is far advanced the attacks of fever become much less frequent, only two or three times a year. The suggestion that the febrile attacks were due to the adult filaria discharging swarms of embryos into the blood was, in Dr. Thornhill's opinion, negatived by the fact that in none of the cases of developed elephantiasis could he find embryos in the blood.

It will be obvious that we have two or more agencies which tend to promote the development of elephantoid hypertrophy when once it has begun. One, and perhaps the most important, is the pendulosity of the affected part, and the impediment to the return of fluids incidental to position. The next is the repeated recurrence of attacks of inflammation, attended always by tumefaction which is only partially removed when the inflammatory action which caused it comes to an end. Thirdly, we have to take count of the growth-force of all living tissues, which in the case of morbid hypertrophies is unrestrained by any law of adaptation to definite ends. This growth-force is probably for the most part only feeble, and may vary much in different cases, but it is always present in greater or less activity. It may cause hypertrophy of epidermal structures in some cases, of the papillæ in others, and in almost all it affects the subcutaneous cellular tissue. It may be of interest in this connection to ask attention to the circumstance that in certain cases tumours which have become pendulous take on elephantoid hypertrophy. The most common examples of this are seen in molluscum fibrosum. In these cases a congenital tumour having become pendulous causes stagnation of fluids, and consequent overgrowth of the skin, in which it is embedded. In these instances the agency of growth-force is the most important factor, and that of recurrent attacks of inflammation is usually but small.

Let me beg to have it clearly understood that I entertain no doubt as to the importance of the part taken by the filaria in the production of elephantiasis as encountered in the tropics. Far less do I desire to disparage the splendid work which has been carried out by painstaking observers in these regions. To the researches of Manson, Bancroft, Low, and others, we owe advances in our knowledge which are of priceless value. My contention is that the connection between filariasis and elephantiasis is neither direct nor universal. All authorities now agree in the conclusion that in the tropics numberless individuals harbour the filaria who have no trace of elephantiasis, and, conversely, that in many cases of the latter no filariæ can be found. It would, however, be wrong to lay too much stress on the latter point, for the search for these embryos often requires much time and patience. It is rather from the prevalence of filaria in those districts where elephantiasis is common than from demonstration of it in individual cases that we get the proof of any connection between the two. I will give some extracts illustrating this.

Dr. Hayman Thornhill, whom I have already quoted, contributed an interesting paper on Elephantiasis in Ceylon to the pages of the *Indian Medical Gazette*. The district was one in which mosquitoes abounded, and where there was swampy ground. In fifteen healthy inhabitants of villages which were affected he found the embryos of the filaria in six out of fifteen, and he thought it not improbable that he would have found it in the other nine if he had persevered. Although he believes that the presence of the filaria accounts for the great prevalence of elephantiasis, he writes: "I examined the night blood of cases of developed elephantiasis, and the day blood of three, but in none of the slides could I find either filaria nocturna or diurna, or any kind of filaria."

Capt. S. P. James, M.B., in a paper on the examination of blood for filarial embryos, remarks: "It is well known that in cases of true elephantiasis filarial embryos are rarely found in the blood, and from this it has been inferred that the filaria cannot be the cause of the disease, but from the statistics which follow it will be seen that this very *absence* of filarial embryos from the blood may be regarded as a strong proof that it was the cause.

The statistics referred to go to show that the filaria is always present in the population where elephantiasis occurs, and absent where there is no elephantiasis, and that there is a correspondence between the prevalence of filaria in the district and the prevalence of elephantiasis. Dr. James adds that the fact that the majority of individuals who are the subjects of filariasis go through life without developing elephantiasis shows that "some other potent cause must be present as well as the parent filaria to bring on an attack of elephantiasis."

The other "potent cause" is, according to my suggestion, the occurrence of lymphangitis. Filaria may be abundant in the blood, but so long as no inflammation of lymphatic trunks ensues, so long there will be no elephantoid œdema. The obstruction is usually inflammatory and but seldom merely mechanical.

There can be little doubt that elephantoid changes, once set going, may persist and continue to advance in persons from whose blood the filariæ have died out.

Dr. Caley, Dr. McLeod and other surgeons have drawn attention to the great importance in operations for elephantiasis of removing the skin of the penis very freely. Their experiences have been that there is great liability to recurrence of the disease if any portions of skin are left which are in the least degree affected. This especially applies to the skin of the penis, and the mucous membrane of the prepuce. It is obvious that this liability to return points to the existence of infective elements in the skin itself, rather than to any proximal impediment to the lymph circulation.

I trust that I have now said enough to convince you that ELEPHANTIASIS is a name for a complex morbid process, and not for any one substantive malady, and that it ought to be applied to all changes, however originating, which tend to produce elephantoid hypertrophy. To speak of "true elephantiasis" and "spurious elephantiasis," and to attempt to restrict the name to one group of cases only, is, I venture to submit, a mistake, and can lead only to obscure conceptions of the nature of the process. We may, if we like, speak of "tumour elephantiasis," "lupoid elephantiasis," "erysipelatous or traumatic elephantiasis," and "filarial elephantiasis," but in doing so we must always keep in mind that the process is the same, and that lymphatic obstruction is in all the cause of the resultant hypertrophies.

INCUBATION PERIODS OF LEPROSY.—Although we possess not a few important facts which illustrate the length to which the incubation stage of leprosy may sometimes extend, we have scarcely any records which show its possible brevity. Such facts are more likely to be obtained in England or the United States than in countries where leprosy is endemic. We want the date of the only possible exposure to risk, and this in the latter can never be assigned. Short periods of incubation have been noted by Arning and Bidenkap (see *Tlin.*, p. 135).

Bidenkap thought that in a case in which a man came from a non-leprous district into one where it was endemic, a few weeks sufficed for him to show the disease. But as fallacies it may be alleged that no part of Norway is wholly free from risk of fish-eating, and that he might have travelled previously.

Arning's case is more nearly conclusive. A young lady came to the Sandwich Islands from North America and showed signs of leprosy within three months.

NOTES OF CASES DEMONSTRATED IN THE CONSULTATION THEATRES.

MEDICAL CASES.

BY SIR WILLIAM BROADBENT, BART.

Tuesday, June 2, 1903.

A Case of Hæmophilia.

The patient was a young man about twenty years of age. During the last six years he has suffered from repeated attacks of free bleeding from the gums, these attacks tending to recur every fourteen or twenty-eight days. The history also included a free hæmorrhage following the extraction of a tooth. At no time had the joints been swollen, and thus the patient had escaped one of the most troublesome features of the disease, as when hæmorrhage takes place into one of the joint-cavities—the knee being the one most frequently affected—it is apt to leave more or less permanent damage to the function of the joint. It appeared, however, that at various times swellings had occurred in the muscles of the limbs, and these were doubtless the results of hæmorrhages. These facts showed plainly the nature of the disease, and it was obvious on further examination that in other respects the patient's condition was quite satisfactory. The special feature of interest in the case was revealed when the family history was related. As is well known, it is usual in hæmophilia, and, indeed, in many other diseases which display a marked hereditary tendency, for the sufferers to be males, but for the line of descent to be through the female side of the house. In the present case there was displayed an exception to this rule. Neither the patient's mother nor any of his maternal uncles has at any time suffered from any manifestation of hæmophilia, but, on the other hand, his father is a bleeder. The family in the present generation numbers five members in addition to the patient, but he is the only one who shows a tendency to spontaneous or excessive hæmorrhages. In reference to treatment Dr. Féré, who brought the case for demonstration, stated that gelatine, calcium chloride, ferric chloride, and other drugs had proved useless; and that he had found a mixture containing aromatic sulphuric acid the best means of checking the hæmorrhage when this occurred. It was advised that a trial be given to thymus gland in accordance with the views of Professor Wright.

A Case of Congenital Heart Disease.

The patient was a child of three years of age. There was very conspicuous lividity, and a systolic murmur was heard over the base of the heart. The lividity, as is usual, became aggravated when the child cried. In drawing attention to this point Sir William Broadbent said that the lividity was dependent, not on the flaw at the pulmonic valve, but on a mixture of the venous and arterial blood in consequence of a patent foramen ovale. He also remarked that in some instances the cyanosis, so far from being increased on exertion, becomes less evident on muscular effort, whilst in other cases it develops during sleep, the attacks then being so violent that the patient's life was endangered, the condition only passing off when the patient is aroused. In all these cases, apart from other risks, there is a special danger attaching to attacks of bronchitis. The pulmonary circulation in such an event is subjected to an additional strain, and this may seriously add to the difficulties of the already embarrassed right ventricle.

A Case of Mediastinal Tumour.

This was a case showing in a very complete fashion the physical signs of solid mediastinal tumour. In particular, attention was drawn to the very marked distention of the veins of the neck and to the fact that this condition remained as a permanent feature and unaffected by respiration, thus showing the effect of some definite obstruction to the venous return as compared with the pulsating distention of tricuspid regurgitation. A further fact of interest was the presence of tracheal tugging. It was particularly pointed out that this does not necessarily mean an aneurysm, as a solid tumour, if attached to the aorta, will equally communicate a downward dragging sensation to the cricoid cartilage when the trachea is put upon the stretch.

Other cases included several examples of organic heart disease, and the diagnosis and treatment of these were discussed in detail.

BY HARRY CAMPBELL, M.D., F.R.C.P.

Examples of Graves's Disease.

Two cases were submitted to illustrate by contrast the wide extremes which Graves's disease may present in clinical practice. One, a woman aged 30, was an example of the disease in its most severe and characteristicform. In addition to pronounced exophthalmos, enlargement of the thyroid, and tachycardia, the patient showed extreme agitation and muscular tremor; she was much emaciated; her skin was moist with perspiration; and there were some patches of pigmentation on the face. The second patient, on the other hand, appeared, so far as her physiognomy was concerned, to be in the enjoyment of good or even robust health.

The one symptom of which she made complaint was palpitation, and this was known to have existed for several months. Examination detected a slight degree of fine tremor in the hands, but otherwise was entirely negative. Dr. Campbell urged that these facts sufficed for the diagnosis, and stated that, whilst tachycardia was an essential feature of the disease, exophthalmos and goitre might both be absent. Another symptom of great value in the diagnosis is "nervousness," the patient readily becoming agitated on the slightest provocation, and it is not infrequent to find a considerable measure of muscular weakness. It is important to bear in mind these less obtrusive features of the disease, as otherwise the atypical cases may readily be overlooked.

Pathologically, Graves's disease may be regarded as marked by an excess in the metabolic processes of the tissues. This excess necessarily means wasting of the tissues, emaciation, and an abnormal production of heat; and from the last there follows sweating, with a view to keep the bodily temperature within normal limits. As a further consequence, there is probably excessive destruction of red blood corpuscles, which may account for the development of patches of pigmentation in the skin.

A third example of the disease was shown in a male patient, in whom retraction of the upper eyelid (Stellwag's sign) was a prominent symptom. This patient also showed very considerable pigmentation of the face, and, in addition, there were some leucodermic patches on the neck.

Widespread Patches of Atrophy Affecting the Integumentary Tissues.

This was a very unusual and very interesting case. The patient was a woman aged 24, and even a cursory glance was sufficient to detect something abnormal in the condition of her face. It was manifest that there existed a readily appreciated degree of right facial hemiatrophy, and this on examination was found to be due for the most part to wasting of the muscles and skin. It was also observed that the right eye was placed relatively deep in the orbit (enophthalmon), that a degree of ptosis was present on the same side, and that the right pupil was contracted. Dr. Campbell alluded to the significance of these facts as evidences of paralysis of the cervical sympathetic. Such paralysis produces recession of the eyeball and partial ptosis by cutting off the nerve supply to Muller's muscle, and it leads to contraction of the pupil because it removes from the circular fibres of the iris and the third nerve the antagonistic influence of the radiating fibres. A further fact showing interference with the nerve control was the existence of several patches of alopecia, and these it was noted were limited to the right side of the scalp. Examination of the right lower limb detected a very remarkable condition. To the inner side of the thigh and immediately above the knee was a considerable patch of atrophy, the whole of the tissues being wasted right down to the bone. Below the knee there was marked wasting, also affecting the integuments and muscles, and this in the foot reached a very extreme degree. The atrophy it was pointed out did not correspond to the distribution of any of the motor or sensory nerves, and did not show in its early stages the hardening of the skin such as occurs in morphœa. The earliest change appeared to be the development of a mottled condition of the skin, and following this, definite atrophic changes gradually developed. It has to be added that there was no paralysis and no anæsthesia, and the patient complained only of a very moderate amount of pain.

Dr. Campbell said that the case was unique in his experience, and he was quite unable to offer any positive opinion regarding its pathology. The conspicuous evidences of paralysis of the sympathetic in the cervical region might perhaps be quoted as a basis for a suggestion that the whole of the facts were dependent on similar changes in other parts of the sympathetic system, but beyond this no light can be obtained regarding the essential nature of the case.

In connection with this case Mr. Hitchins demonstrated several drawings from the Museum displaying conditions more or less similar to those seen in Dr. Campbell's patient.

A Case of Paralysis Agitans.

The chief interest of this case resided in the fact that whilst there was only a very moderate development of tremor, certain other features of the disease were sufficiently pronounced to place the diagnosis entirely beyond dispute. Attention in this respect was particularly directed to the absence of expression from the face (Parkinson's mask), to the attitude of the patient, and to the rigidity of the spine. Dr. Campbell in discussing the case remarked that tremor is not an essential feature of the disease, and suggested that in cases where the tremor is said to have suddenly developed the probability was that such patients had for some time previously been the victims of the disease, but with symptoms more easily overlooked or misinterpreted than is possible in respect to muscular tremor.

Other cases included :—

(1) A young woman, who for several years had suffered from hip-joint disease with several sinuses discharging pus, and in whom there is now conspicuous enlargement of the liver and spleen from amyloid disease. Quoting a somewhat similar case, Dr. Campbell said he had seen an amyloid liver and spleen entirely restored to their normal limits after drainage of an empyema.

(2) An example of hemifacial spasm associated with right homonymous hemianopsia.

(3) A case of paramyoclonus multiplex, and

(4) An example of venous obstruction due to the presence of a mediastinal tumour.

Sciatica and Rheumatic Arthritis of the Hip-joint.

BY DR. BRUCE (OF STRATHPEFFER).

Thursday, May 28.

One of the most interesting of our recent clinical demonstrations was that given by Dr. W. Bruce, of Strathpeffer, in reference to the diagnosis of sciatica. Dr. Bruce had on the previous day delivered one of the Composite Course of Lectures on the same subject. His contention went almost to the length of asserting that there is no such malady as sciatica, in the ordinary meaning which is attached to that name, and which assumes that it is a form of neuritis of the sciatic nerve. Drawing his evidence from his large experience of the patients frequenting the Strathpeffer baths for sciatica and rheumatism he sustained the thesis that all sciatica if critically examined turned out to be disease of the hip-joint. It might be chronic rheumatic arthritis or a transitory attack of gout, acute or subacute. Appealing to the anatomical facts as to nerve distribution he urged that the pains located in the thigh and lower limb were easily explained. They were for the most part "referred pains." He urged that there was never any real anæsthesia of skin nor did the reactions to galvanism follow which are usual after neuritis. Dr. Bruce was careful to state that the doctrine that most "sciatica" is disease of the hip-joint was not original with himself, his share in the argument consisting chiefly in the production of evidence that all cases might be so interpreted. Neglect of systematic examination of the hip-joint was, he contended, the explanation of the general belief in neuritic sciatica. He enforced his views by a long array of tabulated cases in which the patient's family history as well as the symptoms present was displayed.

At the Demonstration which followed the Lecture three patients, the supposed subjects of sciatica, were produced for Dr. Bruce's examination. He carefully went through the various movements of the limb and the search for local tenderness on pressure upon which differential diagnosis should be based, and was able in two out of the three cases to make it clear that the joint and not the nerve-trunk was the part affected. The third case was, however, a more doubtful one. Its subject was a young man of gouty family who had suffered from "sciatica" on the left side some years ago and who was now affected in like manner on the right side. No indications of joint mischief could be elicited. All movements were borne without complaint, but pressure over the course of the nerve always caused flinching. The fact that the recovery from the former attack had been complete impressed some of those present as one opposed to the belief that the joint had been affected on that occasion, and on the whole the case seemed to conform fairly well to the old-fashioned notions of sciatica.

It was pointed out that sciatica did not necessarily mean actual neuritis, but might not improbably consist in arthritic (gouty) inflammation of the fibrous coverings of the nerve rather than of the nerve itself. There can be no doubt that Dr. Bruce's contention is in the main true and that the recognition of its truth is very important. It remains, however, open to question whether he does not push the doctrine too far in denying the existence of any cases which are not articular. That such should, however, be his conviction after his large Strathpeffer experience is a circumstance of considerable weight.

BY JAMES TAYLOR, M.D., F.R.C.P.

Tuesday, June 16.

A Case of Bulbar Paralysis with Amyotrophic Lateral Sclerosis.

The evidences of bulbar paralysis in this patient, a man of 55 years, were definitely beyond question. The tongue was conspicuously atrophied and displayed well-marked fibrillary tremor; articulation was imperfect and indistinct; and the patient complained of much difficulty in swallowing. These facts were recognised as conclusive proof of the existence of chronic disease affecting the nerve nuclei of the bulb. But further examination showed that the pathological changes in the central nervous system were not limited to the bulbar nuclei. First it was observed that there was some degree of paresis of the hands, at least the patient's grasp was weak, and with this there was evident wasting of each thenar eminence. Further, the knee-jerks were exaggerated, and on each side there was readily obtained a quite distinct ankle clonus and an extensor response of the big toe to stimulation of the sole (Babinski's sign). The muscular atrophy in the hands was pointed out as indicative of the existence of a degenerative lesion in the motor nuclei in the anterior cornua of the spinal cord, whilst the exaggerated tendon phenomena seen in the lower limbs were advanced as proofs of an affection of the lateral columns of the cord. It was thus evident that three different portions of the central nervous system were the site of diseased processes, namely, the nuclei of the bulb, the nuclei of the anterior cornua, and the motor tract in the lateral columns. Thus the case in its clinical aspect presented the symptoms of bulbar paralysis in association with evidences of progressive muscular atrophy, and with signs also of lateral sclerosis. In this connection it has to be remembered that the nuclei of the bulb and those of the anterior cornua of the cord belong to one and the same anatomical and physiological series; they are centres of similar rank and function, and merely differ from one another in the fact that they are placed at different levels in the central nervous system. Hence, as is well-known, it is a common experience to find that progressive muscular atrophy (disease of the spinal nuclei) is complicated in its later stages with symptoms of bulbar paralysis (disease of the bulbar nuclei). Further, progressive muscular atrophy may be, and not infrequently is, associated with evidences of lateral sclerosis, there being in such cases not only degeneration of the spinal nuclei (the highest part of the lower motor neurons), but also of the lowest and immediately adjoining part of the upper motor neurons (terminal fibres of the lateral columns). Hence comes the combination of evidences of progressive muscular atrophy with exaggerated tendon phenomena and other signs of lateral sclerosis in the disease named amyotrophic lateral sclerosis. There is, therefore, an intimate clinical and pathological relationship between bulbar paralysis, progressive muscular atrophy, and amyotrophic lateral sclerosis. The peculiarity of the present case is that the bulbar symptoms preceded the evidences of But for the most part bulbar paralysis runs a relatively acute course, and the patients die from involvement of the respiratory centres and without spinal disease. The reverse of this, as already stated, is not uncommon.

any of the signs of disease of the spinal nuclei. On the other hand, progressive muscular atrophy pursues as a rule a very chronic course, and in its terminal phases usually becomes complicated with bulbar paralysis. Thus it may be conjectured that the present patient is an example of a bulbar paralysis of an unusually chronic order, and that the chronic course of the bulbar disease has offered the time and opportunity for parallel changes to develop in the spinal centres and in the neighbouring parts of the lateral columns. It is this reversal of the customary order of events which gives to the case its most interesting feature. The same consideration bears upon prognosis. In any case of bulbar paralysis the outlook cannot be other than an anxious one, but here the prospect is at least to some extent redeemed by the slow progress of the disease in the past. It may not unreasonably be hoped that the same character will mark its progress in the future. This expectation must not, however, be stated with too great confidence, as with degenerative changes present in the bulb there is always a risk of a sudden and dangerous development due to extension of the disease so as to implicate the vital centres. The most effective measure of treatment is the hypodermic injection of strychnine. Cases do occur in which under this treatment the progress of the disease is stayed, at least for a time. Possibly some of these must not be credited to the action of the remedy, as in a certain number of instances the disease reaches a certain degree of development and then ceases, at all events temporarily, to advance. The fact remains that this has been repeatedly observed after the treatment with strychnine has been instituted, and this justifies a considerable measure of confidence in the therapeutic value of that drug so far as checking the progress of the disease is concerned.

A Case of Paralysis Agitans.

The objective facts in this case included tremor of the right hand and a characteristic physiognomy and gait. In discussing the case, Dr. Taylor alluded to the occasional absence of tremor and to the consequent necessity of being prepared to diagnose the disease on the basis of other symptoms. One of these is the muscular rigidity often present, as in the present case, in the muscles of the spine, and giving to the trunk the character of moving "in one piece." Rigidity, too, may often be detected in the muscles of the limbs. A frequent complaint of the patient with paralysis agitans is a sense of great bodily heat, and there may be excessive sweating. Sleeplessness is another troublesome feature in certain cases. Pain in the back of the neck in other instances is the most annoying fact, and this occasionally has led to a diagnosis of spinal pachymeningitis.

The treatment of paralysis agitans is most unsatisfactory. Hyoscine hydrobromide given hypodermically has some power in controlling the tremor, and, indeed, if given in sufficient doses, will suppress the tremor; but in the quantities necessary to produce this last result it causes so much depression that patients refuse to continue its use. In more moderate doses the remedy has some measure of usefulness, as anything which diminishes the tremor lessens what the patient often considers his most troublesome symptom.

A Case of Jacksonian Epilepsy.

This case had a brief but very instructive history. The patient, a man of fifty years, was first seen by Dr. W. F. Roe some six weeks ago. At that time he complained merely of a recurring pain in his left foot. Examination detected no explanation for this, and it was naturally concluded that some slight twist or sprain was responsible for it. A few days later, however, Dr. Roe was called to see the patient, and found him with severe clonic spasms affecting the left side of his body, his mind at the same time remaining perfectly clear. It was thus manifest that the diagnosis was one involving the presence of a discharging lesion in the right cerebral cortex, the pain in the left foot being presumably the first symptom of this. The convulsions continued for some hours, and it was necessary to put the patient under chloroform in order to give him relief. Afterwards full doses of potassium iodide and perchloride of mercury were prescribed, and under the influence of this treatment there has been no return of the convulsions. The only now existing evidence of a lesion in the motor pathway is the presence of Babinski's sign on stimulating the sole of the left foot.

DISEASES OF THE EYE.

BY E. TREACHER COLLINS, F.R.C.S.

Two Cases of Head Nodding, Associated with Nystagmus and Defect of Sight.

(1) Mary C., aged 10 years, was brought to the Moorfields Hospital at the end of April last on account of defect of sight. It was stated that she had had lateral movements of her head since birth. Though not constantly present they had increased of recent years. It was found that these side to side movements became most marked when one eye was closed.

The child appeared strong and well nourished. There was nothing suggestive of inherited syphilis either in her appearance or history. There was no history or symptoms of rickets. No other member of her family was known to be affected with any similar movements of the head. She was able to fix with either eye, but in the position of rest there was marked divergence. The movements of both eyes were good in all directions, and she was able to converge quite well.

Hardly any nystagmic movement could be detected on external examination, but on ophthalmoscopic examination lateral nystagmus of a very fine and rapid character was at once obvious.

Nothing abnormal could be detected in the fundus of either eye, and there was no opacity in any of the media.

Vision right and left eye $= \frac{6}{36}\ \bar{c}\ \frac{+1\cdot 5}{+1\cdot 75 \text{ cylinder axis vertical}} = \frac{6}{24}$, and could not be improved beyond this.

(2) Jane E., aged 16, came stating that her sight had always been defective. It was noticed that she had a side to side movement of her head. This it was stated had been present since infancy, but had become less as she had grown older. It was more marked when she was nervous, and also when she walked about. She had well-marked lateral nystagmus, the movements not being very rapid.

She was slightly anæmic, but otherwise a healthy-looking girl. There was no sign of congenital syphilis, and no history of rickets could be elicited. She was one of a family of nine children; all of them are said to have had similar movements of the head and eyes for a time. Her mother is said to have had movements of her head up to the age of 30.

The cornea of each eye and other media were quite clear.

$$\left.\begin{array}{l}\text{Vision right eye} = \frac{3}{60} - 16 = \frac{6}{60}\\ \text{,, left eye} = \frac{3}{60} - 12 = \frac{6}{36}\end{array}\right\}\text{ unimproved beyond this.}$$

A myopic crescent was present in each eye, but there were no other fundus changes.

It was pointed out that these two cases differed from those of head nodding and nystagmus which have been described under the name of spasmus nutans. In that condition the symptoms, which usually appear about the sixth month, have disappeared by the time the child is two years old. In the first of the above cases the head movements, instead of disappearing were said to have increased; and in the second, though less marked, were still present. Both cases still had nystagmus.

Congenital Dislocation of the Lens in each Eye. Successful Removal of the Right, which was Cataractous, by two Needle Operations.

Mary P., aged 17, was first admitted to the Moorfields Hospital, in October, 1899. She complained that the sight of both eyes had always been defective, and that during the last fourteen months that of the right had become much worse.

The anterior chamber in each eye was deep, and the iris in each was seen to be tremulous on movements of the eyes.

The lens in the right eye was completely opaque, and it was displaced outwards so that its inner border could be distinctly seen when the pupil was dilated. The vision in this eye was only equal to hand movements; the projection of light was good.

In the left eye the lens was then, as at the present time, clear but displaced upwards and inwards; so that with reflected light and a dilated pupil its lower and outer border could be seen.

Vision in this eye was $= \frac{6}{60}$ $\bar{c}$ — 8 D. $= \frac{6}{18}$ partly; J. 1, at four inches.

The right lens was needled the day after her admission; there was some little difficulty in introducing the needle through the lens capsule owing to the lens being mobile and receding before the needle when pressed upon.

A second needling operation was performed on March 3, 1900. The lens substance gradually absorbed and on February 6, 1903, it had all disappeared and the pupil was clear, as at present, except for a few strands of membrane; the vision of the right eye with + 9 D. $= \frac{6}{9}$.

It was pointed out that in many cases of congenitally displaced lens the vision would be improved if the lens could be safely removed. The risk was, that if increased tension followed from swelling of the lens after the needling, and a curette evacuation had to be done, vitreous might escape on account of absence of a portion of the suspensory ligament.

There were also shown a case of paralysis of the right third nerve in a girl aged 11 years, the subject of congenital syphilis; and an example of paralysis of the left third and sixth nerves, in a man aged 50 years, who gave a history of syphilis thirty years previously.

CORRESPONDENCE AND ANSWERS.

The Parangi of Ceylon

"University College, London,
"Gower Street, W.C.
"*May* 13, 1903.

"Dear Sir,

"I had great pleasure in listening to your lecture on parangi last Christmas in Ceylon. From a philological point of view I always thought it had some connection with syphilis, but all doubts were set at rest by your instructive lecture.

"The following is taken from a description of Ceylon given by Ribeyro, date 1685, translated from the Portuguese by Abbé le Grand. I came across the passage since your lecture. I hope it may interest you, purely from a historical point of view.

"'Le mal de Naples qu'ils appellent avec raison en ce pais-là Parangelere, mal Portugais, parce que ce sont les Portugais que l'y ont porté, ne se guerit pas oisement.'

"Parangelere, I think, stands for parangi-leda, leda meaning disease in Sinhalese.

"I am sir, yours truly,
"C. A. Héwavitarna."

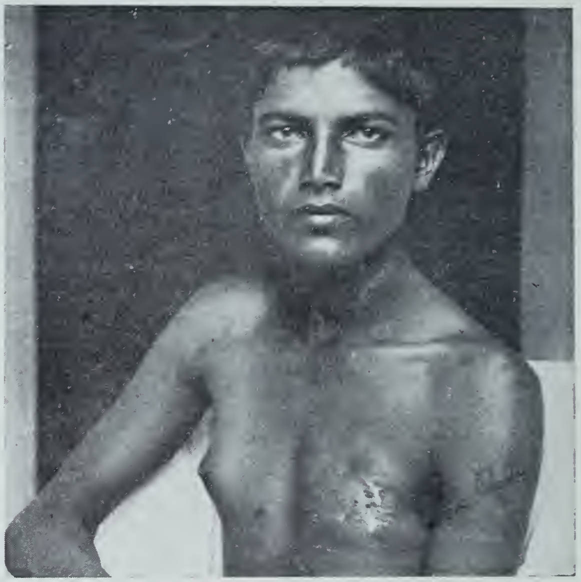
* * *

From Professor Clifford Allbutt, Chaucer Road, Cambridge:—"Isn't it rather unkind to say leprosy 'almost omitted in English text-books on medicine' when in *my* 'System,' at any rate *forty* pages are devoted to it?"

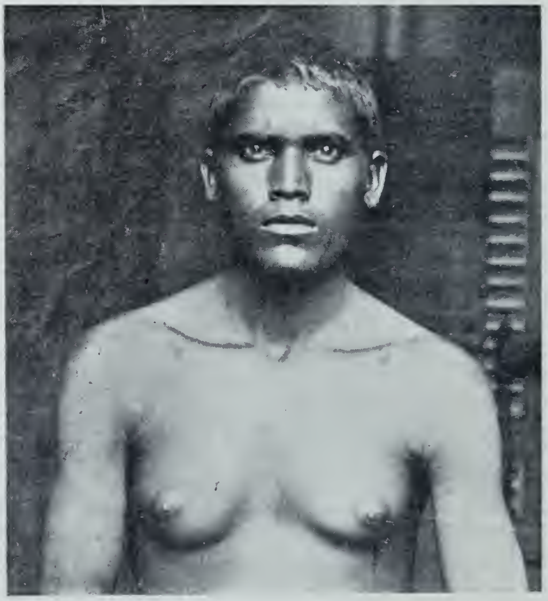
We had thought of Allbutt's "System of Medicine" as something much more than a "Text-book."—Ed.

ILLUSTRATIONS OF GYNECOMASTIA IN HINDOOS.

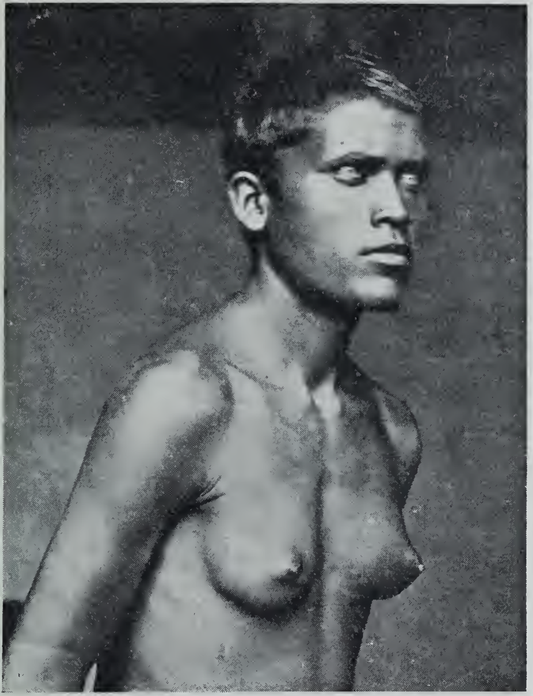
By the kindness of Dr. Bird and the courteous assistance of the Publishers of the *Indian Medical Gazette* we are enabled to present our readers with copies of the portraits which illustrated Dr. Bird's paper. It is not necessary on the present occasion to describe them in any detail. They are referred to at page 258 in our comments on "Defective Differentiation of Sex."



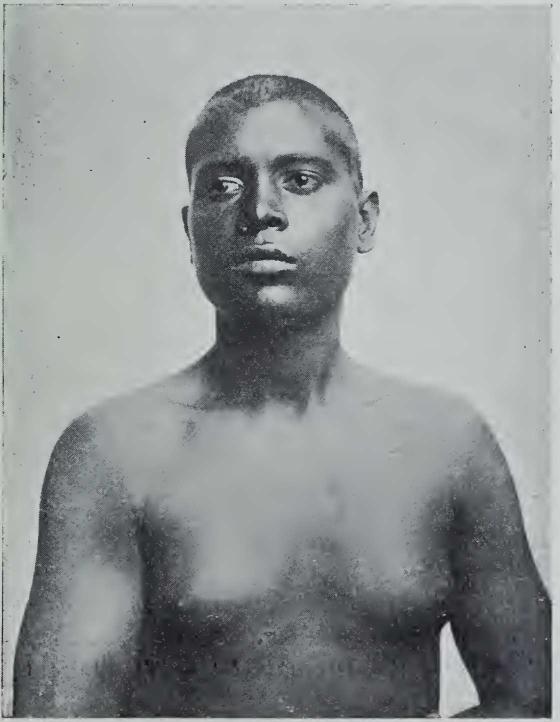
Gynecomastia in a Hindoo (Dr. Bird). The left breast had been excised.



Gynecomastia in a Hindoo (Dr. Bird).



Gynecomastia in a Hindoo (Dr. Bird).



Gynecomastia in a Hindoo (Dr. Bird).

ENGAGEMENTS AT THE POLYCLINIC DURING THE MONTH OF JULY.

July 1, *Wednesday.*—Mr. Johnson Smith.—Consultations (Surgical) at 4 p.m. Mr. James Berry.—Lecture on Harelip and Cleft-Palate, at 5.15 p.m.

July 2, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Mr. J. Hutchinson, Jun.—Lecture on Diseases of the Tongue, at 5.15 p.m.

July 3, *Friday.*—Mr. R. Lake.—Consultations (Ear, Nose and Throat) at 4 p.m. Dr. A. Whitfield.—Lecture on Eczema, at 5.15 p.m.

July 6, *Monday.*—Dr. T. Colcott Fox.—Consultations (Skin) at 4 p.m. Dr. T. N. Kelynack.—Lecture on Intrathoracic Tumours, at 5.15 p.m.

July 7, *Tuesday.*—Dr. C. Theodore Williams.—Consultations (Medical) at 4 p.m. Dr. A. Whitfield.—Lecture on Eczema, at 5.15 p.m.

July 8, *Wednesday.*—Mr. E. W. Roughton.—Consultations (Surgical) at 4 p.m. Mr. James Berry.—Lecture on Harelip and Cleft Palate, at 5.15 p.m.

July 9, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Dr. Purves Stewart.—Lecture on Hysteria and its Diagnosis, at 5.15 p.m.

July 10, *Friday.*—Dr. Jobson Horne.—Consultations (Ear, Nose, and Throat) at 4 p.m. Dr. Comyns Berkeley.—Lecture on Extra-uterine Gestation, at 5.15 p.m.

July 13, *Monday.*—Dr. Graham Little.—Consultations (Skin) at 4 p.m. Dr. J. E. Squire.—Lecture on the Clinical Varieties of Pneumonia, at 5.15 p.m.

July 14, *Tuesday.*—Dr. W. Ewart.—Consultations (Medical) at 4 p.m. Dr. F. J. Smith.—Lecture on Bronchitis and Emphysema, at 5.15 p.m.

July 15, *Wednesday.*—Mr. P. J. Freyer.—Consultations (Surgical) at 4 p.m. Dr. C. O. Hawthorne.—Lecture on Pulse Tracings and their Clinical Significance, at 5.15 p.m.

July 16, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m. Dr. C. O. Hawthorne.—Lecture on Pulse Tracings and their Clinical Significance, at 5.15 p.m.

July 17, *Friday.*—Mr. Work Dodd.—Consultations (Eye), at 4 p.m. Dr. J. E. Squire.—Lecture on Pleural Effusion: Causes and Treatment, at 5.15 p.m.

July 20, *Monday.*—Dr. A. Whitfield.—Consultations (Skin) at 4 p.m.

July 21, *Tuesday.*—Dr. Seymour Taylor.—Consultations (Medical) at 4 p.m.

July 22, *Wednesday.*—Mr. Jackson Clarke.—Consultations (Surgical) at 4 p.m.

July 23, *Thursday.*—Mr. Hutchinson.—Consultations (Surgical) at 4 p.m.

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